Vol. XXIII No. 11 NOVEMBER, 1916 Price, 10 Cents

# CAMERA CRAFT

SAN FRANCISCO
CALIFORNIA

# The Cyko Keynote is Performance—

CYKO PAPER announces what photographers all over the world are achieving with it, and that's really advertising. Quite different from claiming and offering to send free samples, as is the case with other brands.

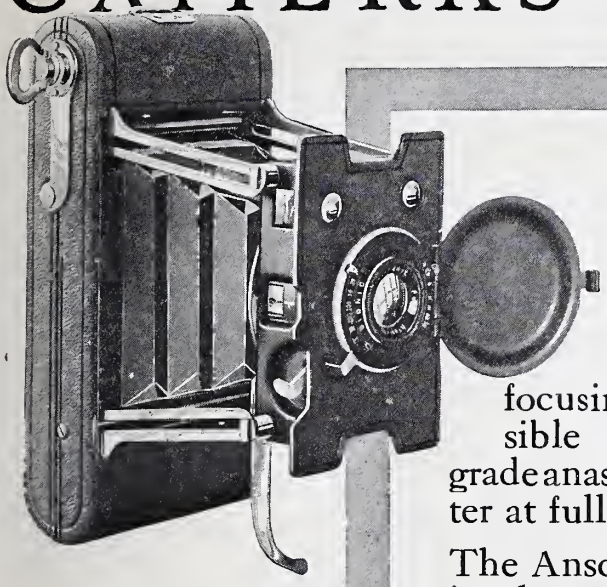
CYKO is to the fore in every dealer's shelf. It greets you in every leading studio.

*There is a reason*

## Ansco Company

Binghamton, N. Y.

# ANSCO
## CAMERAS & FILM

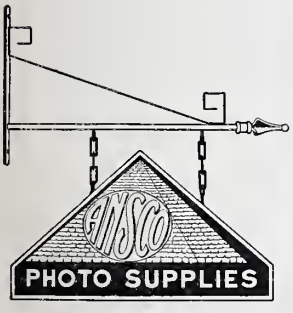


Ansco Vest-Pocket No. 2. Takes a picture 2¼x3¼ in. Equipped with F:6.3 Ansco Anastigmat Lens, $27.50—with F:7.5 Modico Anastigmat Lens, $17.50.

THE Ansco Vest Pocket Camera No. 2 ranks as one of the great recent Ansco inventions. The micrometer focusing device makes possible the use of its high grade anastigmat lens and shutter at full opening.

The Ansco Vest Pocket No. 2 is the smallest and lightest camera made to take 2¼ x 3¼ pictures. It is replacing the pocket diary, because pictures taken with it tell stories quicker and better than words. No posing or seeking the best light necessary. It takes the picture where the picture *is*, and *takes it right*. Send for specimen picture.

Ask to see the Ansco V-P No. 2 at the nearest dealer's. Catalog from him or us free upon request.




**The Sign of the Ansco Dealer**

## ANSCO COMPANY
## Binghamton, New York

# LEARN A PAYING PROFESSION

that assures you a good income and position for life. For 22 years we have successfully taught

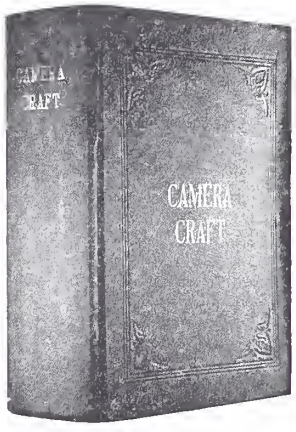
## PHOTOGRAPHY, PHOTO-ENGRAVING, THREE-COLOR WORK

Our graduates earn $20 to $50 a week. We assist them to secure these positions. Learn how you can become successful. Terms easy—living inexpensive. Write for catalogue—NOW.

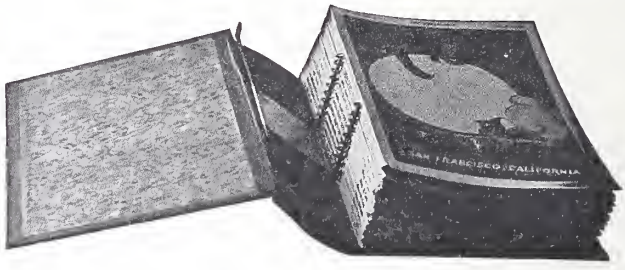
## ILLINOIS COLLEGE OF PHOTOGRAPHY

**L. H. BISSELL, President** **907 Wabash Avenue, Effingham, Illinois**

# BIG BEN BINDER *for* CAMERA CRAFT




For a long time we have been looking for a really practical border. one that we could recommend to our readers. We believe we have found it in the **BIG BEN** shown below. Put on the



market only a few months ago it has already been adopted by such leading publications as Cosmopolitan, Ladies' Home Journal, Good Housekeeping and hundreds of others. This binder is finished in book cloth with **Camera Craft** stamped in gold on front cover and back. It is equipped with a patented device for binding twelve copies of Camera Craft together in a single volume, having the appearance of a regular bound book. It is strong in construction and so simple in operation that the filing or extraction of one or more magazines requires but a few seconds. No punching of holes is necessary—just a slit between the pages with a pen knife, the insertion of a metal clip, and the magazine is ready to be dropped into place over the binding rods, which are swung back and, with a slight turn of the wrist, securely locked to the solid wood back. The back is not flexible and there is no chance for the magazine to work loose or uneven. We supply them at **$1.00 each, postpaid.**

## CAMERA CRAFT : .

CLAUS SPRECKELS BUILDING
SAN FRANCISCO, CAL.

# We wish to announce that we can now supply

# EROGEN

*This is not a new developing agent* on the market, nor is it a Metol substitute.

Erogen has been known to the photographing public for years as a most economical, efficient developing agent.

Why take chances on Metol substitutes—when we can supply Erogen with the distinct understanding that if it does not work to *your* entire satisfaction return it to us and *we will refund the full price paid.*

| 1-oz. Bottle | 4-oz. Bottle | 8-oz. Bottle | 16-oz. Bottle |
|---|---|---|---|
| $ .85 | $3.25 | $6.25 | $12.00 |

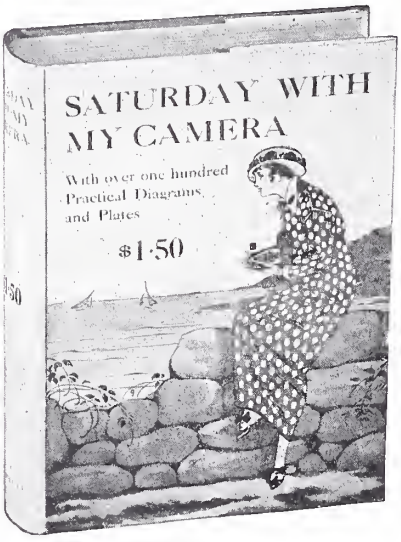
## Mission Photo Supply Company

88 Third Street, San Francisco, Cal.

*Largest Independent Dealers In The West*

## The *Best Book* for the Amateur

# SATURDAY WITH MY CAMERA




**A Popular and Practical Guide to the Work of the Amateur Photographer at Every Season of the Year.**

**By STANLEY C. JOHNSON, M.A., D.Sc.**

**Lavishly illustrated with over 100 drawings and plates. 450 pages, index and many tables. Volume, 6¼″ x 8¾″. Nearly two inches thick. Decorated cloth, $1.50 net. Sent postpaid, $1.65.**

Here is a book for the busy worker who can only devote to this most fascinating of pastimes the leisure which the week-ends bring. The book is divided into four sections — Spring, Summer, Autumn, and Winter. This is a new and novel arrangement, clearly indicating just what can be done with a camera during the different seasons, and thoroughly and clearly explaining, both in text and the numerous illustrations, just how to do it.

**READ OVER THE TABLE OF CONTENTS**

**This New and Up-to-Date Work Covers Every Phase**

**INTRODUCTION.**—Photography; a Pastime, an Art, an Educational Factor. The Choice of Apparatus and Materials.

**SPRING.**—First Day With the Camera. Art of Developing. Correct Exposure. Supporting the Camera. Printing-Out Paper. Platinum Process. Elementary Chapter on Orthochromatics. Handling of Roll Films, Portraiture Without a Studio, Photography of Cut Flowers. Adding Clouds to Landscapes. Controlled Printing. Fitting Up the Dark Room.

**SUMMER.**—Pictorial Composition. Hand Camera in the Street. High Speed Photography. Photographing from Moving Objects. Architectural Photography. Sport With Reflex Camera. Photographing Small Creatures of the Countryside, Birds, Fish, etc. Carbon Process. Autochrome Process. Pinhole Photography. Photographing Growing Flowers. Stereoscopic Photography.

**AUTUMN.**—Bromide and Gas Light Printing. Art of Enlarging. Bromoil Process. Reduction and Intensification. After Treatment of Negatives and Prints. Retouching. Photographic Ornaments, Curios, etc. Copying Pictures. Nature Photography. Trick Photography. Making Frames. Book Illustrating by Photographic Means. Making of Photographic Models.

**WINTER.**—Lantern Slide Making. Lantern Shows at Home. Trimming and Mounting Prints. Magnesium for Portrait Work. Table Top Photography. Photographic Book-Plates and Silhouettes. Snow Pictures. Nature Photography in Winter. Photographic Christmas Cards. Storing of Negatives. An Amateur's Balance Sheet.

**MISCELLANEOUS.**—Useful Tables. Poison Chart. Bibliography of Photographic Works. Photographic Note Book. Glossary and Terms. Index.

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FOR SALE BY

## MARSH & COMPANY

**712 Market Street** (The Trade Supplied) **San Francisco, Cal.**

HICROGRAPHY
HESS-IVES COLOR PHOTOGRAPH

# An Open Letter to the Photographic Fraternity

*Gentlemen:*

SOMETIMES every day, and then again a week or two apart, the mail brings Mr. Ives a request to address a gathering of photographers on the subject of color photography. So far as time and distance permit, Mr. Ives has found much pleasure in complying as well as stimulus in the interest that photographers everywhere have brought to the subject of his lifetime study: Photography in Color.

Where Mr. Ives cannot go personally, or we can only occasionally send a representative, the enterprising journalist does visit you regularly. To him we shall therefore entrust a monthly message telling you about color photography in general and in detail. We shall try to make this sufficiently interesting to warrant your searching the pages of this journal for it.

Now just what is a color photograph?

It is not a photographic print in black and white or in delicate grays tinted with water colors or oils; no more so than such tinted print would rank as a painting in water or oils.

It is not a transparency, whether viewed in front of a light or in a mirror frame, though a screen plate transparency is a nearer approach, as its color is largely due to the action of light on the plate in the camera; but such transparencies no more cover the field of color photography than lantern slide positives cover that of monochrome photography.

Though Mr. Ives himself originated transparency color photography over twenty-five years ago with his triple projection lantern and his chromoskope and later with the more flexible film transparency complete in itself, these all were but stepping-stones to that ultimate goal: a color photograph which responds alike to the demands of the public and to the requirements of the photographer as an artist and as a business man; this means:

The color photograph must be viewable by direct light, like any other picture; it must be true; it must be capable of reproduction in any desired quantity and in all regular plate sizes. The process must be definite and yet under full control for variations of hue, light and shade; it must be simple enough and sufficiently kin to ordinary photographic working to be readily acquired; it must permit the artist in posing, in lighting and in retouching and "working up," to express himself fully; no investment in special apparatus must be called for.

This has been the goal, and this has been finally reached.

Photography in Color—Hicrography—is now yours to introduce to your discriminating patrons.

Respectfully,

THE HESS-IVES CORPORATION

N. W. Cor. Race and 12th Streets,
Philadelphia, Pa.

*October 16, 1916.*

*President.*

# Our Clubbing Offers

**Canadian and Foreign Postage Rates vary with the different Magazines**

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| CAMERA CRAFT | $1 00 | $1.50 |
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| Camera | 1 50 | |
| CAMERA CRAFT | $1 00 | $2.50 |
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| CAMERA CRAFT | $1 00 | $5.25 |
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## CAMERA CRAFT

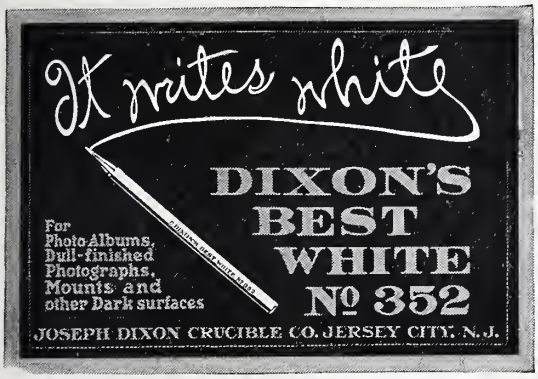
**Claus Spreckels Building** **San Francisco, California**

PHOTOGRAPHIC

# View Post Cards

Work of high quality from your negatives. 100 cards from one negative, $2.00, copied from print 25 cents extra. 1000 cards from ten or less negatives, $14.00. Make money furnishing attractive cards to local dealers. *Send for samples.*

**Photo Advertising Company**
Department C
116 South 4th Street Minneapolis, Minn.




**COLORED ENLARGEMENTS FOR CHRISTMAS**

| | |
|---|---|
| 5x7 | $1.00 |
| 8x10 | 1.50 |
| 11x14 | 2.00 |

**A. E. DAVIES 695 61st St. OAKLAND, CAL.**
*Lantern Slide Coloring for Particular People*

**Expert Advice** for the Amateur Photographer. Send 2-cent stamp for particulars to **Charles F. Rice, P. O. Box 517, Mamaroneck, New York.**

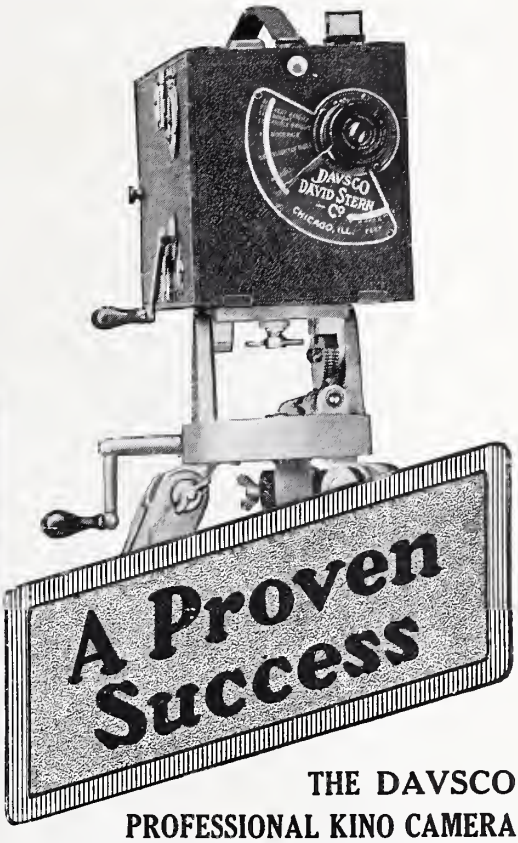
## Back Numbers Wanted!

Some of our subscribers want back numbers to fill out their files for binding, We will list each month such numbers as are wanted, Those having back numbers should watch this advertisement regularly.

**May.....1900 August.....1903**

Send us, during this month, only such issues as are listed above and be sure that the reading pages and the frontispiece are complete. In return we will extend your subscription fifteen months for an issue of 1901, fourteen months for an issue of 1902, thirteen months for an issue of 1903 and so on. Mark the wrapper plainly.

**CAMERA CRAFT,**
**413-415 Claus Spreckels Bldg.**
**Subscription Dept. San Francisco, Cal.**




**THE DAVSCO PROFESSIONAL KINO CAMERA FOR MOTION PICTURE PHOTOGRAPHY**

***Takes Motion Pictures Equal To Any Camera Made***

The **DAVSCO** is a new departure from the old antiquated bulky cameras long in vogue.

The **DAVSCO** weighs but 10½ lbs.

The **DAVSCO** Cam and Shuttle Intermittent (patented) is a marvel of accurate mechanism, made of oil-tempered tool steel.

The **DAVSCO** focusing device enables the operator to focus directly through the film.

The **DAVSCO** is equipped with a 50 M.M. B. & L. Zeiss Tessar F:3.5 lens in Special Mount with the **DAVSCO** patented exposure indicator.

The **DAVSCO** magazines are made of aluminum, one piece, screw cover.

The **DAVSCO** Camera takes 200 feet of film with one loading.

Other desirable features make The **DAVSCO** the biggest value ever offered.

Our modern manufacturing facilities make possible this low price of **$110.00.**

Light weight Panoramic and Tilting Top Tripod, $25.00.

## MAKE US PROVE IT

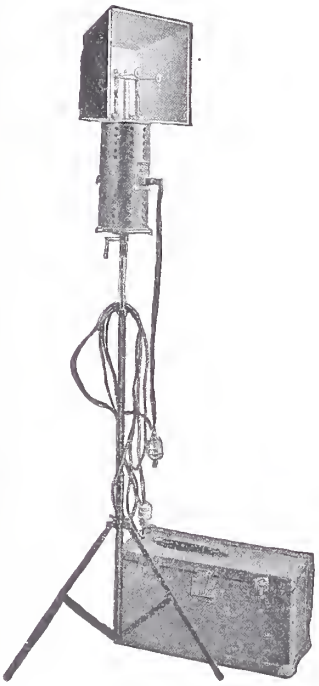
We are prepared to make immediate shipments.
Write us to-day. NOW!

**DAVID STERN COMPANY**
**The National Camera Exchange**
**Established 1885**
**1047CC Madison Street Chicago, Illinois**

# NORTHERN LIGHT

**FOUR PORTRAITS BY HENRY HAVELOCK PIERCE**
**Made with the open arc of One Northern Light No. 1. No diffusers or reflectors used. Exposure one quarter second.**

THE NORTHERN LIGHT is used by the most particular photographers in America—photographers to whom results alone appeal, regardless of cost, and who are able to buy the most expensive equipment.



Yet the price of the "Northern Light" is lower than that of nearly all artificial studio lights and it is less than one-fourth the size of most of them. It is pronounced by experts to be the closest approach to June Sunlight plus Blue Sky that has ever been attained, its pure violet white rays permitting of studio exposures of as short as one-quarter of a second.

The "Northern Light" blends with daylight and positively dispenses with make-up of any sort. In Motion Picture Photography, it produces fully-timed negatives at sixteen per second exposures even with close-up subjects.

Its photographic value is 160 times as great as a 750 watt tungsten lamp—consequently 20 times as many tungsten lamps and six times as much electric power would be required to obtain the same time of exposure as required by one "Northern Light."

***The Photographic Sensation of the Season.***

PRICES

No. 1—15 amp. light, 10,000 candle power complete with collapsible stand and case **$48.00**

No. 2—25 amp. light, 14,000 candle power complete with collapsible stand and case **$58.00**

*Send for complete illustrated catalogue.*

**Simplex PHOTO PRODUCTS CO.**

RICHMOND HILL, L. I.
NEW YORK

## *A New Photographic Paper*

# JAPINE SILVER

**An Inexpensive, Simple Paper giving Brilliant Sepia Tones**

| Sizes | Per doz. | Sizes | Per doz. |
|---|---|---|---|
| 3¼x4¼ | $0.20 | 5 x7 | $0.50 |
| 4 x5 | .30 | 6½x8½ | .80 |
| 3⅞x5½ | .35 | 8 x10 | 1.20 |

Full-size rolls equalling 1 dozen 20x26 sheets, $6.50. **Special Toner** for Japine Silver, sufficient for 2 doz. 8x10 or 8 doz. 4x5, 25 cents.

Send 50 cents for a liberal sample of paper and toner, any size up to 8x10.

**Willis & Clements** 1814 Chestnut St. Philadelphia

**Gray V-P. Enlarger and Stereopticon**

**The Enlarger you waited for but did not expect at the low price— $16.**

SPECIAL FEATURES; Triple Condensers, Tilting Easel with 8 x 10 printing frames gives straight lines and rapid change. Takes blue and ground glasses between condensers as needed. Takes all V-P negatives. Enlarges on Gaslight paper. Projects full size lantern slides up to 8 ft. A "lightweight" machine of gigantic performance.

**Booklet free. R. D. Gray, Ridgewood, N. J.**

**DUITAL** The King of All Developers
$1.00 per oz. $15.00 per lb.

**AMIDOL** - - - $1.00 per oz. $10.00 per lb.

**SERCHOL** (British made) $1.25 per oz., $16.00 per lb.

**HYDROCHINONE** - - - $3.90 per lb.

WILLOUGHBY

Broadway and 11th Street New York City

# Polygon Cameras

**with Rietzschel Double Anastigmats**

Perfect Cameras and Perfect Lenses. giving Perfect Results.

**Meyer Camera and Instrument Co., Inc.**

31-33 East 27th Street :: :: NEW YORK

# STEADMAN'S

## AABAMETER $1.00

*Correctly measures the light for all exposures*

J. L. LEWIS

522 Sixth Avenue New York City

# Metol

Agfa, Hauffs, $5.00 per ounce, with Ansco Formulae to make 110 quarts developer. Also Pyro and Hydrochinon to highest bidder. Write

**C. A. BASKE, 1020 Church St., Ann Arbor, Michigan**

**NEW IDEAS, NEW METHODS, BETTER PHOTOGRAPHS, MORE MONEY.** Daddy Lively's way taught by a rapid method. Complete course for beginners, opening January 8th, 1917. Special Post-Graduate Course for Professionals in February. Write for catalogue and information. Southern School of Photography, McMinnville, Tenn.

Get rid of what you do not need for something you do! **LENSES** I buy, sell and exchange lenses and all other good

## PHOTOGRAPHIC APPARATUS

Repairing also done.

Let me quote you prices, or on **ANYTHING** else wanted —backgrounds, etc,, before buying elsewhere—*it will pay you.* **Real bargains** constantly on hand and in sight.

**MOVING PICTURE MACHINES SOLD ON EASY PAYMENTS**

Send for catalogue and particulars.

**RALPH J. GOLSEN 5123 Kenmore Ave., Chicago**

# AUCELLO

## FLASH POWDER

**Has Great Light—Great Speed Low Price!**

***You'll Like It!*** Ask your dealer for circular—**"Win a Prize"** taking flashlight pictures, or write

**PHOTO CHEMICAL CO. Lincoln Park Sta., Chicago**

# HARVEY EXPOSURE METER

**FOR ALL CAMERAS**

**Including Motion Picture and Cirkut Cameras**

Exposures for Exteriors, Interiors, Night Photography, Paget and Autochrom Color Plates.

FOR ALL COUNTRIES

*Ask your dealer or write the manufacturer*

**G. L. HARVEY -:- 105 S. Dearborn St., Chicago**

## THE CURRY AMATEUR HAND PRINTER

(PATENTED)

**It requires only four motions to make a perfectly even white margin print with the Curry Amateur Hand Printer.**

Saves time, labor and paper. Perfect results. **Eliminates trimming.** Two sizes: 3¼x4¼ **($1.50** and Post Card. ( each Including set of 7 masks.

**ALL DEALERS**

**FRANK J. CURRY, Mfr., Phiadelphia, Pa.**

# STOP!! STOP!!

Our New No, 19 Bargain List is now ready, Contains startling values in Cameras, Lenses and photographic supplies, Imported Ica and Butcher Cameras. Headquarters for CYKO paper.

**WRITE TO-DAY FOR FREE COPY**

**New York Camera Exchange** 109-11 Fulton St. New York, N. Y.

**LEARN** Art, Commercial and Motion-Picture **PHOTOGRAPHY** and Photo-Engraving

Anyone can learn—men or women. No experience necessary. Photographers earn $25 to $50 weekly. Camera Men earn $40 to $100 weekly. Actual work only. No book study. 3 to 6 months' course; day and night classes; easy terms; earn while learning; we assist you to positions. Catalogue D sent on request.

**New York Institute of Photography.** 22 W. 23d Street, New York

Founded and directed by E. Brunel, operating 18 modern studios.

# The Amateur Photographer

AND

## Photographic News

PUBLISHED WEEKLY

The Premier Photographic Journal of the world. Edited by F. J. Mortimer, F.R.P.S.

**Annual Subscription - $3.65**

Magnificent illustrations in colors *every week* of the works of the world's best photographers.

Technical, Pictorial and Practical Articles.

A most important feature for the Beginner is

THE NOVICE'S NOTE BOOK

*Send a 2-cent postcard for a free specimen copy.*

OFFICE: 52 LONG ACRE, LONDON ENGLAND

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desirous of creating and extending trade with

**ITALY**

now and after the war should advertise in the leading Italian Photographic Monthly—

**"IL CORRIERE FOTOGRAFICO"**

PUBLISHED IN MILAN

Advertising rates and specimen copy free from the sole British and American Agents.

**NEYROUD & SONS, LIMITED**

**Foreign Advertising Specialists**

**REGENT HOUSE, KINGSWAY, LONDON, ENGLAND**

# THE British Journal of Photography

**The Recognised Organ of Professional and Amateur Photographers.**

A weekly photographic paper of reliable information and instruction. The oldest in the world, but the most up-to-date. Noted for its sound practical help in all branches of photographic work. The journal which readers keep and refer to again and again.

During 1916 a valuable weekly feature of the "B. J." is "Decennia Practica," a review of important items of practice, formulae, etc., published within the past ten years.

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**Henry Greenwood & Co., Ltd.**

**24, Wellington Street, Strand, London, England**

☞Postcards must be stamped two cents

American Agent: George Murphy, Inc., 57 E. 9th Street, New York

# Bromide Enlargements

## BLACK AND WHITE OR SEPIA TONED

To encourage subscribers to make the best use of their negatives we will send, for each subscription of $1.00 forwarded to us direct for CAMERA CRAFT alone, five coupons entitling the subscriber to a half-price rate on a like number of enlargements.

It is better to order your enlargements unmounted on account of the liability of damage to corners in transit.

These coupons are to be used as follows: They must be sent in before the expiration of the subscription for which they were issued. When you wish an enlargement made, enclose one coupon for each enlargement ordered, with half the amount of the regular price quoted below; viz: each coupon represents half the price of one enlargement.

BROMIDE ENLARGEMENTS—REGULAR PRICES FOR GOOD WORK

| | UNMOUNTED |
|---|---|
| 5 x 7 | $ .40 |
| 6½x 8 | .65 |
| 8 x10 | .75 |
| 10 x12 | 1.00 |
| 11 x14 | 1.25 |
| 14 x17 | 1.50 |
| 16 x20 | 1.75 |
| 18 x22 | 2.25 |

FOR SEPIA ADD 25 PER CENT

Address: Department C. **CAMERA CRAFT**

**Claus Spreckels Building** **SAN FRANCISCO, CALIFORNIA**

# INTRODUCE US TO YOUR FRIENDS

WE will be pleased to send a free, postpaid sample copy of CAMERA CRAFT to any person whose name and address is submitted to us by a reader. Kindly send us the name and address of your friends who are interested in photography and we will earn you their thanks. You will have our thanks as well. In this way you can help to increase the wide circle of usefulness which CAMERA CRAFT enjoys.

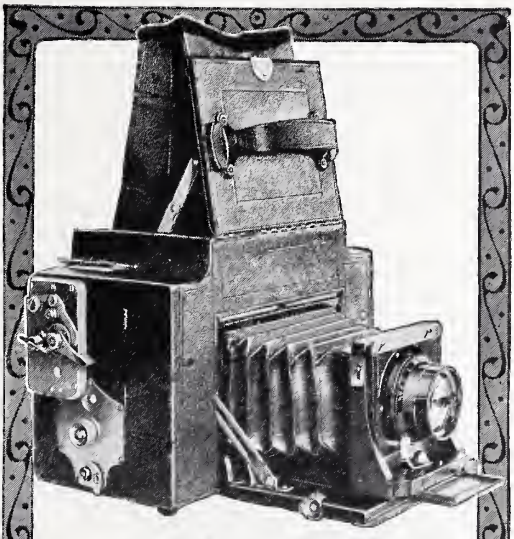
Just Drop Us a Card Containing the Names and Addresses of Your Friends Interested in Photography

**CAMERA CRAFT**

CLAUS SPRECKELS BLDG.

**SAN FRANCISCO**





# $85 for this $125 3A GRAFLEX Zeiss Tessar Series 1C. F.4.5 Lens

*Write Us Today.* Save exactly $40 on this 3A Graflex. It's one of the 964 real values in our Bargain Bulletin.

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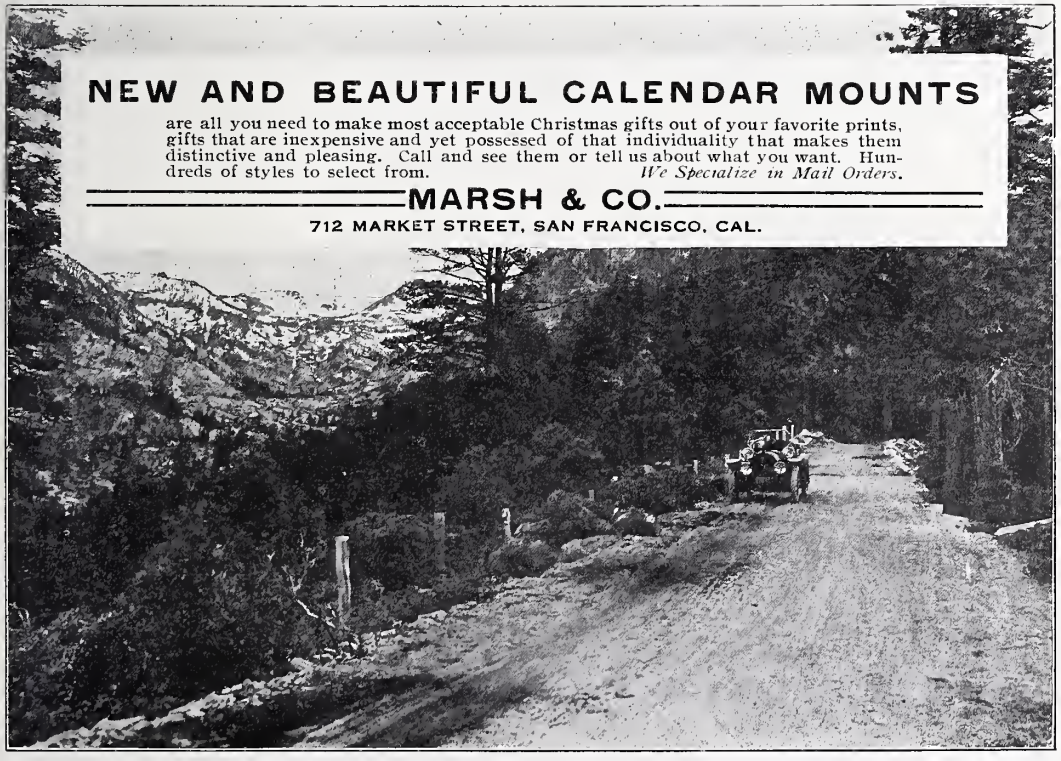

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# Flashlight Pictures

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A HOME PORTRAIT
By THOMAS SOUTHWORTH

# CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor

CLAUS SPRECKELS BLDG. SAN FRANCISCO CALIFORNIA

VOL. XXIII NOVEMBER, 1916 No. 11


# Enlarging for the Portrait Photographer

**By Thomas Southworth**

With Illustrations by the Author

In my own work of home portraiture, I use only 5x7 plates or films, mostly the Eastman portrait films. Since it is practically impossible to detect any difference between an 8x10 contact print and an enlargement, provided the latter is made from a good, sharp negative, with the same kind of paper used and the work rightly done, I find the plan of making comparatively small negatives and enlarging therefrom much more economical. Using the smaller film I feel warranted in being more liberal with my exposures; and, doing so, the average of satisfaction is bound to be higher. From this greater number of negatives a selection is made and these last I retouch, working under a good magnifying glass when the order is to be for larger prints. My light equipment for enlarging is an Aristo lamp behind nine-inch condensers. I have found that, even with a fast lens, any less powerful light makes is necessary to give too long exposure for Artura Iris or similar papers. And that reminds me of a little matter I have discussed and heard discussed at various times, namely, whether it is possible, when making enlargements with an anastigmat lens, to secure any greater or more sharp definition by stopping down, assuming the best possible focus has been secured with the lens wide open.

Theoretically, it may be reasoned that by virtue of the fact that the negative from which the enlargement is being made has no depth, nothing is gained by stopping down after a perfect focus is secured. In actual practice I find it otherwise. It is just possible that, on account of the extremely strong light used, reflections from the inner surfaces of the lens have a flattening or diffusing effect which decreases in proportion to the amount of stopping down.

One can realize that a perfect focus is imperative in turning out 8x10 prints made from 5x7 negatives, particularly those showing several small figures and much room furnishing detail. Practically all of my work is of this detail demanding character and quite naturally I have experimented not a little to determine exactly how little stopping down will give me the desired result. I use an f-4.5 portrait Unar, and stop down to f-5.6 or f-6.3 in making all my negatives, but in making my enlargements the lens is stopped down to f-8. On those few occasions where I carry forward a bust negative I find it more satisfactory to secure the desired normal diffusion by using the lens at its full opening in making the enlargements. In this connection it occurs to me that a description of my copying and enlarging equipment may be of interest.

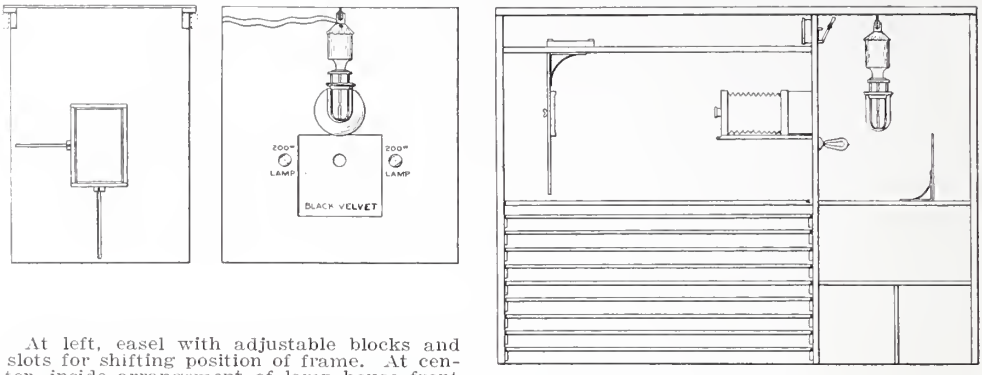
A PORTRAIT MADE IN THE HOME

For every phase of my work except of course operating, I use only one small room. This necessitated not a little planning in order to have everything as ideal as possible, and this last condition I claim to have secured. My enlarging and copying apparatus takes up only nine feet along one side of the room, the lamp house taking up three feet leaves me six feet in which to place camera and easel, as shown. This lamp house and the bench at the left are twenty-eight inches deep. The lamp house, made light tight, contains, in addition to the Aristo lamp, a small easel on which is placed pictures to be copied. In the wall opposite the center of this last is located a hole fitted with an extra lens flange, the wall surrounding being covered with a fifteen inch square of black velvet. At both sides of this square, on a line with the lens opening, is

situated a two-hundred watt tungsten lamp, these last used for illuminating the small picture being copied. This gives me a good volume of light; and, coming from both sides as it does, the grain of the paper is not emphasized. This arrangement, using the room itself for a camera with the lens in the wall as shown, does away with the expense of a long bellows camera and reduces to a minimum the annoyance and uncertainty of getting a sharp focus, especially when enlarging a small copy many diameters. Not only is the expense of a camera avoided, but almost any lens will answer so long as an enlargement of enormous size is not required.

To make a copy I pin the small picture to the easel within the lamp house, put the lens in place, lower the 5x7 printing frame by means of the slot in the large easel, focus upon a piece of white paper enclosed within the frame; and then proceed exactly the same as when making an enlargement on paper. The two slots and the blocks for holding the frame on the easel admit of any shift of position necessary to bring the image straight and centered on the white paper in the frame, this paper being replaced by the plate when the exposure is to be made. It will surprise anyone who has never used this method of copying to find how very easy it is to get a sharp focus. Well I remember how, years ago, the labor entailed when enlarging small figures from old tintypes to 11x14 or 16x20. I would carefully drape three or four large covers over the end of my 18x22 camera so as to exclude every trace of light around my head, wait about five minutes to secure eye accommodation

A CHARMING FAMILY GROUP




At left, easel with adjustable blocks and slots for shifting position of frame. At center, inside arrangement of lamp house front with lens opening surrounded by black velvet with lamps at sides and condenser above. At right, arrangement of enlarging apparatus, showing economy of space achieved.

before attempting to focus, and then never felt quite certain that the image would be sharp. With my new arrangement I work standing inside the camera, and the experienced photographer can see at a glance that this method is much more efficient and greatly superior to the old. The two tungsten lamps are far enough apart to prevent their being reflected by any part of the copy, and the black velvet around lens on inside of lamp house also kills possible reflection of a less direct character. The electrical connection is situated outside just below the lens. This consists of a forked cord that connects with an ordinary socket, the key of this last serving to turn the two lights on or off as required.

My method of making 8x10 or larger prints from the 5x7 portrait film negatives, requires only an examination of the sketches above. The Aristo lamp is about ten inches from the opening in the division wall, on the other side of which are located the nine-inch condensers and the camera as shown. The small sketch gives a good idea of the arrangement of the easel carrying the printing frame in which the paper is placed. The switch and rheostat for the Aristo lamp are shown above the condenser box, although the individual exposures are made by means of a lens cap. This last is fitted with a yellow glass front in place of the opaque leather covered material. When not in use the easel is pushed back against the wall at the left, and the bench, six feet long and twenty-eight inches wide, can be used for other work, there being no track or like obstruction in the way. The space below this bench is occupied by a series of frames used for drying prints. These are made from inch square lumber, are covered with cheese-cloth, and slide into grooves made by nailing 1x2-inch strips twenty-eight inches long, across each end, spacing them a little over an inch apart. Under the lamp house is a 28x30 shelf and the space below is divided into two compartments by a support in the middle. Just above the arrangement is a shelf, nine feet long, one end serving as a ceiling for the lamp house.

As the reader, who has perhaps himself tried to make a lighting by flashlight such as the one here shown, may be interested I will try and explain how such results are secured. The sitter is posed in the selected spot, one that permits of the flash machine being placed a little back of and enough to the side to be well out of the picture. Then a reflector, raised high enough to be just off the plate, and about two feet in front of the sitter, is adjusted, while the

A VERY PLEASING LINE LIGHTING EFFECT

camera is used in its usual position with the lens of course pointing under the bottom of the reflector. As the front of the flash machine or cabinet is usually made at an angle to throw the light downward, I interpose a supplementary diffusing screen, suspended from the arm of a light stand, in such a manner that the reflector receives the direct light from the flash while the light reaching the sitter must pass through the additional diffuser. I use Victor powder exclusively and find that this particular lighting requires about three times the usual amount. This arrangement is the best of the many I have tried for securing this effect. Just a little care and time is necessary to secure a correct adjustment of this additional or auxiliary diffusing screen as it must prevent all direct light from reaching the sitter and at the same time must not come within the field of the lens or interfere with the full force of the light reaching the reflector.

Pictorial composition may be defined as the proportionate arranging and unifying of the different features and objects of a picture. It is not the huddling together of miscellaneous studio properties—a dummy, a vase, a rug here, and a sofa, a fireplace, a table there; it is not the lugging in by the ears of unimportant people to fill up the background of the canvas, as in the spectacular play; it is not taking a real group from nature and transplanting it upon canvas. There must be an exercise of judgment on the part of the artist as to fitness and position, as to harmony of relation, proportion, color, light; and there must be a skilful uniting of all the parts into one perfect whole.—JOHN C. VAN DYKE.

# Finding Out What the Public Wants

**By J. Clyde Wilson**

With Illustrations by the Author

THE CHAMPION PIE EATER

F. Dundas Todd, when he was editor of *The Photo-Beacon,* used to tell a very pointed story to illustrate the importance of seeing things from more than one angle. As those photographers who have enjoyed Mr. Todd's pithy discourses will recall, he had a vigorous, insistent style, and gave voice to whatever was on his mind at the time of writing which could, by any stretch of the imagination, bear upon his subject. This sometimes led him to make seemingly conflicting statements, so that he was frequently open to the charge of being inconsistent. How well he was able to defend himself from this accusation is well illustrated by the following story: One day while returning from a convention of photographers, where he had made an address, he was accosted by a young man who sat opposite him in the railway car. "That was a fine address you made at the convention yesterday," began the young man, "only it seemed to me you were a little inconsistent."

"Inconsistent?" repeated Mr. Todd, questioningly.

"Yes!" returned the young critic, "You said a man had a perfect right to change his mind every five minutes if he wanted to, because we can never tell one minute what may arise the next to alter our opinion."

"Well, isn't that true?" asked Mr. Todd.

"I can't see how it is", retorted the critic confidently, "That would leave a man without convictions."

"Well, let me show you what I meant," returned Mr. Todd indulgently.

"Do you see that farm-house ahead, out the car window?"

"Yes, the *little* house over there, sure."

"Well, take one good look at it now because you are going to change your mind about it in a minute. You'll find that isn't a *small* farm-house at all."

"Well, perhaps that's true," replied the young man, but from all the evidence at my command when I said it was *small,* I had a right to so describe it."

As they talked the train whirled on. "Well, you look back at it now," Mr. Todd advised quietly. The young man did so to discover a great rambling farm-house with two long wings which had been wholly invisible from the approaching train.

"You're right," concluded the young man, "It's a very large place, but I'm looking at it now from a different angle."

"Well, you see, that makes a lot of *difference,*" smiled Mr. Todd triumphantly, "And don't forget the fact that you formed an opinion and changed it all in the small space of less than one minute." The victory was complete.

"Yes, but——" protested the young man.

"——that's better than I ever did in my palmiest days," finished Mr. Todd, and they both laughed.

It is always worth while to see things from as many angles as possible. Particularly is this true of the photographer whose business depends so much on individual whim and so little on necessity. It is worth while trying to see just how the public looks upon photographs. When we are too close to an object—as the photographer is to his business—we are so absorbed in its various details, that it is with difficulty we can see it in its entirety. We take a narrow view of it, influenced, most decidedly, by that phase of it which appeals most strongly to our own temperament. In a measure this is well, for we cannot produce anything thoroughly good without a careful consideration of details, but it is equally true that perfect work is not possible without broad vision and the ability to stand away disinterestedly and size it up with the impersonal judgment of the outsider. We hear a great many photographers asking the question: "What is the matter with photography?" The frequency with which we hear it, and the seriousness with which it is put seems to indicate that something is really wrong. What is it?

My neighbor Jones stopped mowing his lawn the other morning and came over to our fence line. "John," he called to me—I was sprinkling the garden at the time—"I want to show you some snap-shots my Cousin Jim took when he was over, last Sunday."

I set the nozzle of my hose on a brick to take care of itself and went over to look at the pictures. My neighbor fished in his pocket and finally extracted a package of letters and other rubbish. In an old envelope ragged with age and none too clean he discovered the prints. He withdrew them fondly and handed them over for my inspection. They were little amateur shots, about half the size of one's palm. The blacks were black with a vengeance, and the whites were as white as the whitest whitewash that ever graced your cellar wall. The negatives had been underexposed and printed on the contrastiest paper that could be found. They curled badly and were occasionally streaked when they were not gray as a London fog.

My neighbor stood back with a smile of confidence and indulgently awaited my verdict.

"Well, what do you think of them?" he asked.

I was just going to pass some extravagant compliment when he interrupted and saved me from my own folly.

"I think they are the best pictures we ever had of Mabel," he confided.

A GROUP MADE IN THE HOME

I thought of the beautiful pictures I had taken of her last spring at my studio—pictures I had put all my best efforts into, and the best of workmanship, because he was my neighbor. I said nothing, but smiled graciously. Self-control puts severe tasks upon us sometimes. As a photographer it goes against my grain to commend slipshod work. Like every other photographer, I take a wholesome interest in good technique, so much so that it is almost a hobby with me. I look for perfect negatives and perfect prints even before I consider the subject of the picture at all.

"Well, what do you think?" my neighbor pressed me at last, smiling good naturedly and confidently.

It wouldn't be just right to pour a cold stream upon his enthusiasm, it was so beautiful in itself. What was I to do? I hadn't the heart to say they were abominable negatives and worse prints—but that's what I thought. I should never forgive myself for doing it, neither would my neighbor, or my wife. Well, to make a long story short, there are times, it seems to me, when a lie isn't always a lie—there are extenuating circumstances, don't you know, when charity supersedes all the virtues—and this was one of them. I brought myself together, held the prints out at arms' length with mock admiration, cocked my head at a critical angle and was on the very point of uttering the untruth when he interrupted me again; he too was surveying them—with admiration. "By Jiminy. Those are great!" he exclaimed, "and so like her mother. Got her pose and expression to a T."

I smiled. I vow I am not of a mean disposition, or sarcastic, but there *are* times, you know——! The picture he was raving over was the "gem" of the collection. The little girl's feet were too near the camera and appeared exceptionally large, the dress was badly wrinkled and very untidy, and her smile seemed perfectly preposterous. Moreover the films had been lightstruck. I was going to call his attention to these defects when he said:

"John, I wouldn't part with those pictures for one thousand dollars."

I know I wouldn't pay that for them, but what could I say?

I can't get one-one-hundredth of that amount for my cabinets as a rule.

GOOD PORTRAITS IF NOT THE CONVENTIONAL STUDIO LIGHTING

I have spent all my life making pictures and believe I possess at least some skill at my labors and I know my workmanship is a few thousand times better than was the workmanship on these snap-shots. Yet he wouldn't part with them for one thousand dollars.

"Why, John," he went on in explanation, "They are living likenesses of her,—true as life itself." He extracted an odd one from the bunch; "Look at that now. Isn't that a corker," and he held it up admiringly. "And here's another peach, John," he suddenly exclaimed grabbing the pictures from me impulsively and shuffling them over rapidly in his hand till the so-called "peach" turned up.

"I think this one is a wonder!" he exclaimed as he held it up before my gaze. I nodded. As I did so he unconsciously got his head almost in front of my face that he might be squarely in front of it and so gaze more intently upon it. It was another shot of Mabel.

"Ain't it cute?" he gloated.

I am sure there must have been murder in my eye at that very moment but I smiled bravely. I didn't think it cute at all. Another view overlapped it from a double-exposure, and there in Mabel's lap, wonder of wonders, majestically sat my neighbor's cow, "Madge". Madge seemed thoroughly contented, as she had a right to be, for such lounging places are not enjoyed by the commonality of cows, and Madge seemed to realize it.

"What do you think of that one?" my neighbor burst out, slapping me

on the back in glee. I was just going to tell him of the cow's unwholesome presence in the view, which I thought he must have overlooked, when he laughed it away himself:

"Old Madge there adds a little touch of rusticity." And he laughed good-humoredly. I am glad he laughed or something dire might have happened.

I am making enlargements now from my neighbor's films, cow and all, and he has purchased the best frames I have in stock for them. He says he is going to hang them in his front parlor. Fortunately when we visit them we seldom sit in the parlor, and my wife vows we never will if she can prevent it. She says I am quick-tempered and she dislikes to see me "het up". Perhaps, she is wise. There are times when I show militant tendencies, but I have always thought myself very calm except when unduly provoked.

To put all joking aside, however, I am still thinking of my neighbor's photographic prejudices. They would be less interesting if they represented his individual stand, but they do more, for they epitomize the public attitude toward photography. Every photographer has met this individual innumerable times, with his enthusiasm and his love of kin, and few of us have taken the tip from him. We go on absorbing new ideas in lighting and posing, experimenting with new kinds of paper, worrying over toning methods, and the like, and disregard the great lessons of amateur photography. I am not the one to blame amateur photography for the position of the profession. On the contrary I believe it has risen by its own merits. It is always fascinating, gives opportunity to the individual fancy, and opens an outlet to the creative instinct that reposes in every breast. It affords the professional the very best opportunity to discover the public taste in photographs, and to profit by it. Like every other merchant the photographer must study his consumer-market. He has got to size up his business with the eyes of his patrons and see what they like in the way of photographs. It is what they like that they are most willing and anxious to pay for. It is what they *want,* and so becomes a kind of necessity with them—and if we want a thing badly enough we are going to have it at any cost, and our will acts. As I have tried to show, the photographer invariably puts his emphasis upon technique,—too often he puts too much emphasis there. Of course technique counts. The public will not excuse slipshod amateur-like work from the professional who pretends to pose as an expert. They take it for granted he understands thoroughly the handling of his tools, just as they expect it of a carpenter before he hangs out his shingle. But,—and this is the point of my paper,—good technique should not be an end in itself, but a means to an end. The thing which interests the public in portraiture is not primarily the lighting of the subject, or its background, or the mount it is on, or its tone, though all of these things may be admired. Its end as evidenced by the amateur's enthusiasms, is to capture the subtle something which constitutes personality. The little shades of expression, or pose which reveal the inner man and bring him vividly before us in all his charm of individuality. "It's a living likeness of her," my neighbor exclaimed in this narrative, and the whole story is summed up in his expression.

We need a new school of photographers, who will put the drawing of per-

sonality before the mere machinery of making photographs. Far from being unprofitable as this kind of photography is erroneously described by the unthinking, it is the very kind of pictures the public most keenly desire and are willing to pay for. "Bread and butter photography" is a better name for it. But this is the kind of photography that demands artists, and artists are all too rare. But they are appearing here and there and they are invariably successful photographers, because they understand their public and meet its needs in a conscientious way. What a day for photography will it be when all photographers realize this, for the photographer at his best ranks with the artist and the author, who alone can immortalize the present. And the photographer, when he sees truly, does it better than either of them.

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The observer needs not only to know what to look for; he has to learn how to see. It is not enough to search for beautiful combinations; there are so many of them in the fields, the woods, by the riverside, and even in the streets, that they would simply bewilder by their abundance if regarded merely as a succession of pictures, and one would in that case derive no more benefit from one's walks abroad than from a hasty visit to the Royal Academy. It is therefore necessary, besides looking for beautiful things, to seek the essential principle that makes them beautiful.—ANTONY GUEST.

# The Amateur's Dark-Room

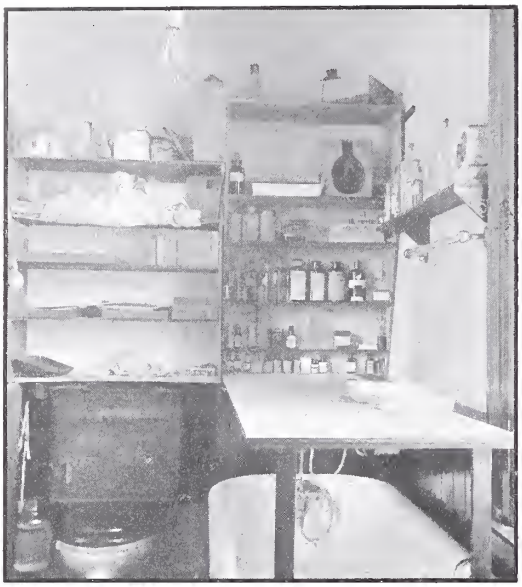
**By W. H. Wilcox**

**With an Illustration by the Author**

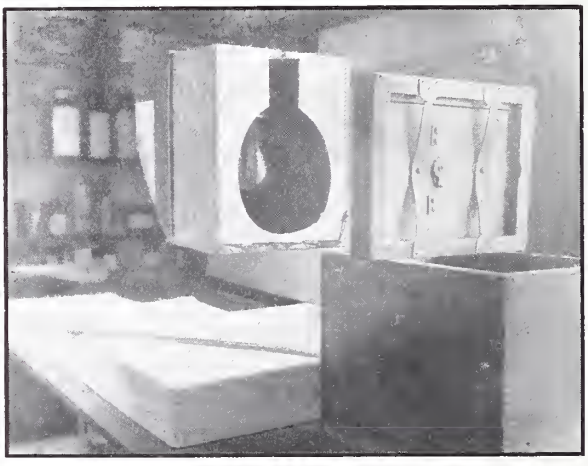
In his efforts to do serious work the average amateur photographer is handicapped through having no specially equipped dark-room. He usually waits until after dark, obtains the use of the kitchen sink or table, brings from various hiding places his bottles, trays, and other paraphernalia, and there does his developing and printing. While some excellent work, even prize-winning pictures, are produced under such conditions, many of us require more convenient facilities, and I will describe a few helps which I have originated and am using with such satisfaction that I think they may be of interest to other amateurs.

In most houses the bath-room is the one which can be most readily used for a dark-room when needed. The window may be fitted with a removable shutter consisting of a wooden framework covered with heavy cardboard or other opaque material of light weight. For convenience in storing, when not in use, this shutter may be made in two sections, hinged together if desired. It should be made light-proof by tacking strips of felt or heavy dark cloth over the joint and along the edges so that it will fit snugly into the window frame.

For a convenient corner of the bath-room build a cabinet of shelves, using clear, smooth boards from one-half to three-quarters of an inch thick. The dimensions recommended are approximately thirty inches wide, fifty inches high and twelve inches deep, but the size and also the distances between the shelves may be made to suit one's individual preference or to fit the space available. This cabinet should be firmly secured to the wall and at such a height that the bottom will be about thirty-eight inches from the floor. The front or door of the cabinet is built of three-fourths inch clear smooth boards and hinged to the bottom shelf. One quarter of the distance from its upper end two legs of the right length are hinged to this door so that when dropped it becomes a work table. Thirty-eight inches is a convenient standing height for this table for the average person, but it may be raised or lowered to suit the individual. If the table is desired longer than the height of the cabinet it may be made five or six feet long, the extra length extending above the top of the cabinet when closed. My table is six feet long and is found to be a very good size. The accompanying picture shows this cabinet and supplements the foregoing description. At the left is seen an additional stack of shelves which are very useful for holding various photographic supplies. The woodwork may be painted or stained and will thus be less objectionable to any hostile member of the family. An amateur who is not handy with tools can doubtless find some carpenter friends who will make the shutter and cabinet in exchange for photographic work.



CABINET WITH DOOR FORMING TABLE

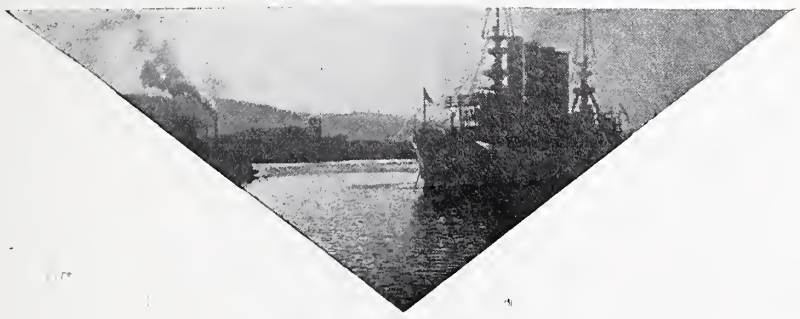


MY PRINTING LAMP BOX

I want also to describe an electric-lamp box which I use for the printing and development of gaslight papers. It is very easily made, and with the accompanying photograph will need but little description: Get a light wooden box

about six by eight by ten inches, preferably a dovetailed one, obtainable at any drugstore. With a knife or coping saw cut out the greater part of the bottom and one end, leaving enough wood in the corners to prevent the box from collapsing. In the other end cut a slit one-half inch wide toward the center from the bottom, to receive electric light cord, so that the box will hang squarely from the cord with lamp-socket and bulb just inside. The bottom as the box now hangs, and the open side (originally the top) are to be covered with red tissue or post-office paper. In use I hang this box so that the bottom is about six inches above the table with the open side toward the right, in front of which opening I place the printing frame supported on a box to bring it level with the light. Under the lamp is the fixing bath in a large tray, and to the left is the developing tray, both well-lighted by the two ruby windows in the bottom and left side of the box. I fill the printing frame on the left end of the table where the light from the open end of the box does not reach with sufficient strength to fog the sensitive paper. A refinement in this box is the attaching of a cardboard screen for protecting the eyes from the direct rays from the red light, which may be folded over the box when not in use. A sixty or one hundred watt lamp is a convenient size for printing, and the lamp cord should be adjusted so that the box will hang at the right position over the table. It may be prevented from swinging by a string from the corner of the box to a hook in the nearest wall.

To those who appreciate the importance of clean and dry fingers when handling gaslight papers and negatives in filling the printing frame, the following suggestions will be helpful: For keeping the fingers almost entirely out of the solutions when developing prints I use a swab of absorbent cotton fastened with a small rubber band to the end of a glass stick made by cutting a half-inch strip eight or ten inches long from a scrap of plate glass, the sharp edges being then smoothed with emery paper. To immerse the prints thoroughly in the fixing bath I use a similar swab on the end of a stick of wood. When through developing, the cotton should be slipped from the glass stick and destroyed, but the fixing swab may be used repeatedly. By this method only the tips of the thumb and forefinger of the left hand touch the developing solution, and then only to transfer the print to the fixing bath, while the latter need not be touched by the fingers until the prints are ready for washing.



# Determining the Selling Price

By J. G. Boyd

With Illustrations by the Author

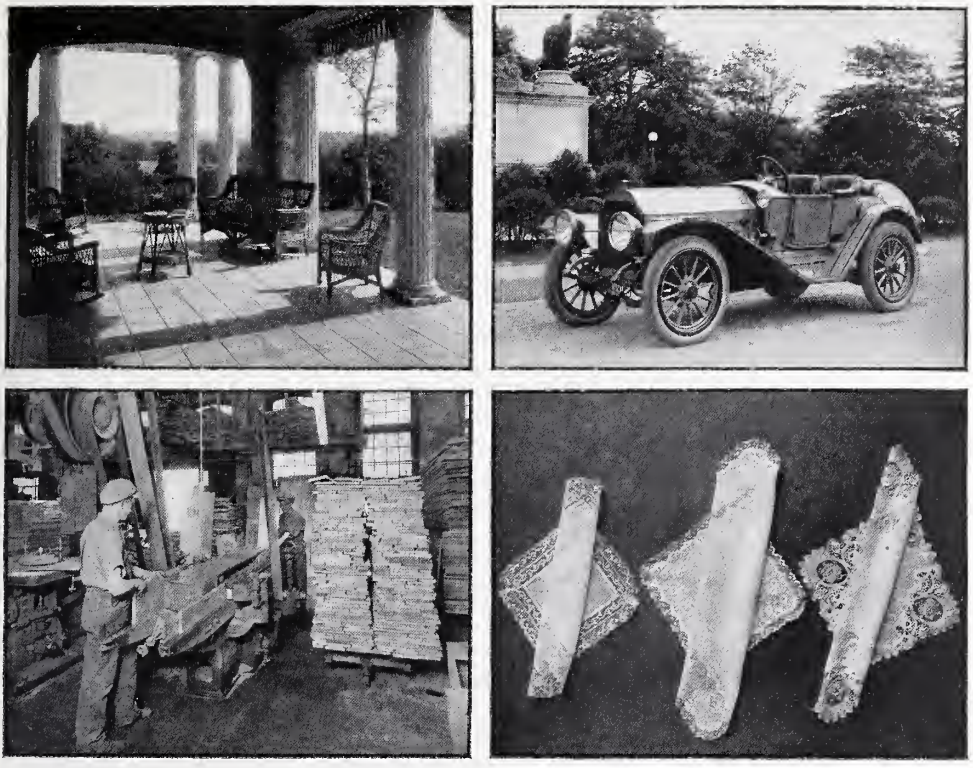
In the conduct of nearly all small business ventures, a logical and comprehensive method of calculating rational selling prices is all too frequently ignored or not understood. It is, perhaps, not too much of a strain upon our imagination to believe that such specific ignorance is more often than otherwise the principal if not sole cause of financial disaster.

"Scratch a fact and you'll find a mystery" is a truism of almost daily application. Photography has been classified as being in the "specialty" branch of Commerce. Ordinarily, a relatively small investment in this industry does not warrant the employment of even a fairly high priced accountant who, among his other qualifications, is competent to intelligently calculate correct selling prices when the initial cost price is given. The correct method of ascertaining that factor is not particularly difficult and is well within the capabilities of a fifth and sixth grade pupil in our public schools. While some investigators may find some detail set forth herein to be not exactly to their individual liking, yet, taken as a whole, the method given is of present day application in many representative accounting departments.

The conduct of a photographic establishment is one of the prominent examples of small business investments wherein, according to the standard under consideration for determining selling prices, a quite erroneous method of sale price accounting is very prominent. For example: Assume that a certain photographer has calculated by an alleged erroneous method of calculation, that the cost price for a dozen pictures is, say, two dollars, and that he desires to realize a profit of fifty per cent thereon. In arriving at his selling price he is quite apt to figure that fifty per cent factor as being one dollar, and that that amount added to his assumed cost of two dollars dictates a selling price of three dollars. Such a deduction, according to elementary arithmetic, is obviously quite correct, for one dollar is, most assuredly, fifty per cent of two dollars, but is that method of calculation correct according to modern standards? Apparently it is not. Suppose we analyze a bit.

It certainly requires considerable good, hard coin of the realm, to properly conduct any kind of business, be that business great or small. In one instance it may be a popcorn stand, in another a National bank, yet the underlying principles are exactly the same in both cases. Certain fixed and variable expenditures are, in each extreme instance, unavoidable. True, they may vary somewhat in extent in different ventures but their general application is held to be present in all.

In no case, perhaps, is it entirely correct to assume that true cost price is



COMMERCIAL PHOTOGRAPHY SHOULD BE CLEAN AND CRISP

covered by adding together, say: rent, wages, materials, heat, light and water. All such items must, of course, be included, but are there not additional items of expense of very material importance, not covered thereby? Assuredly, yes! Then arises the natural inquiry, of what additional items do they consist? Are they speculative or basic? They are basic! Suppose we term them "fixed charges" and define that term as implying expenditures which would continue to pile up financial obligations against the property, no matter whether or not the property was operating. If that definition is justified, do we not at once observe that, clearly, they are not speculative, whatever else they may be.

The smaller the business venture the less apt we are to find fixed charges given any serious consideration when determining costs. This omission, as I have said, is believed to be largely due to the lack of proper accounting. Fixed charges and their non-inclusion in cost items are, undoubtedly, the underlying cause of more commercial disaster than is any other factor that may or may not be responsible. Therefore, if this statement be even approximately correct, should not the "Boss" set his fifth grade offspring to work establishing the magnitude of their application to his individual business? Or, better still, forego attending the movies some night, or decline that pinochle invitation, and devote the time to carefully studying their asset worth! Remember, please, a "pious" regard for their intelligent inclusion in cost accounting may prove the one factor essential to financial success.

We have accepted as our definition of fixed charges, those expenditures which will continue to pile up obligations against the venture, operating or at a standstill. Then arises the further question as to what charges or obligations are rightfully included. The list varies somewhat in certain instances, but in practically all it covers: Interest on investment, depreciation, sinking fund, maintenance, and taxes and insurance. There may be other items, but these will, probably, be found in every case.

Interest: An expense, it is believed, too self-evident to require further comment.

Depreciation: This covers the amount "charged off" each year, whereby the original cost price of the equipment is decreased annually to a degree dependent upon the per cent so charged off. Suppose, for instance, you pay, say, one hundred dollars for a camera and stand, brand new. Certainly, if you undertook to sell it after it had been used a year, you would not receive its original cost price. The amount you did receive, subtracted from the cost price would show the "depreciation" even though the apparatus might really be in as good operating condition as it was when originally purchased. Each year its re-sale worth becomes less and less. Now, each must, for himself, determine just what sum shall be charged off each year. Assume, if you please, that he elects to charge off eight per cent annually, then, in that case, after the expiration of twelve and one-half years, he has recovered his original cost.

Sinking Fund: Some accountants maintain that, where full depreciation is provided for, the item of sinking fund should be excluded. Perhaps, yea, perhaps nay, depending upon your individual view point. Here is one such seldom touched upon; in fact, one that has never been in evidence to the writer. You have, let us say, made your investment. Later on, you find another excellent opportunity to start a second plant, but lack the necessary capital. Plant number one, owing to modern method of accounting employed therein, is a nice paying business, and you are exceedingly desirous of opening up number two. You, being well and favorably known to your local people, finally approach an investor with the request that he supply the necessary funds. An agreement is arrived at whereby he furnishes you with, say, two thousand dollars on ten year bonds at five per cent interest; but, he exacts that you set aside each year an amount equal to ten per cent of the bonds, for their redemption. This understanding is of course clearly set forth, and, unless you agree thereto, he will decline furnishing the money. This provision for the redemption of the bonded debt is known as the "sinking fund;" and, if it be so essential when another furnishes the money, it is equally so no matter who provide it, even though it be yourself. And this matter of a sinking fund does not conflict with the item of depreciation, as depreciation takes place irrespective of the source of the funds employed. Therefore, why should not both depreciation and fixed charges appear in the schedule?

Maintenance: This item covers repair of apparatus necessary from time to time in order to keep the physical property up to its original standard of operating excellence. The amount to be set aside for the proper covering of this item varies greatly in different cases; and, while some are and others are

not, careful in the handling of their apparatus, this item, estimated accordingly, is a just one in every case.

Taxes and Insurance: These, like interest, require no comment.

Now, to apply these factors, we must assume or estimate a definite value for each. Then, with all values set forth opposite their respective items, it is easy for one to change any or all of them to suit their individual case. Let us assume that the investment is two thousand dollars. Interest we will set down as six per cent. Depreciation has already been fixed at eight per cent, and sinking fund at ten per cent. Maintenance, we will assume, is two per cent, and taxes and insurance, jointly, three per cent. By adding these together we have a total of twenty-nine per cent. It may be incorrect to charge this twenty-nine per cent against the total investment of two thousand dollars, but doing so, we may be guilty of only a small excess charge, a matter of no serious moment to our individual pocket book, an inaccuracy easily corrected when our venture has been conducted sufficiently long to permit of accurate actual factors.

Twenty-nine per cent of two thousand dollars is surely five hundred and eighty dollars, and this last, divided by twelve, gives a monthly fixed charge of forty-eight dollars and thirty-three cents. Bear in mind please, no wages or other operating expenses such as rent, light, fuel, water and the like, are included in this amount, but must yet be added to this item of fixed charges. Suppose the "Boss" credits himself with a salary of one hundred dollars a month, and a first and second assistant be employed at sixty and forty dollars respectively. Then, this total of two hundred dollars must be added to our forty-eight dollars and thirty-three cents, making a joint total of two hundred and forty-eight dollars and thirty-three cents. Suppose we find rent, water, and light cost fifty-one dollars and sixty-seven cents, we have a grand total of fixed charges and operating expenses of three hundred dollars per month. Assuming that the average receipts for a like period amounts to nine hundred dollars, on dividing three hundred by the nine hundred we find "overhead" charges to be thirty-three and one-third per cent of our income. For the time being, the cost of materials, chemicals, etc., are omitted, which enables us to apply this exhibit to the case of the two dollars plus one dollar, mentioned in my third paragraph. We have found that, omitting cost of materials, it costs us thirty-three and one-third per cent of our gross income to do business. Therefore, whatever profit we desire must be added thereto. Assuming if you please, that a net profit of twenty per cent is desired, that desired twenty per cent added to our previously determined thirty-three and one-third per cent gives a total, omitting the fraction, of fifty-three per cent. To determine our selling price for an article costing two dollars, and upon which cost price we desire a profit of twenty per cent, we consider for a moment that our selling price is, obviously, one hundred per cent, and therefore, we subtract the fifty-three per cent overhead from one hundred per cent selling price have forty-seven per cent to cover our sales price. Dividing this two dollar cost by forty-seven, we find our selling price will be, substantially, four dollars and twenty-five cents. This provided we are satisfied with a profit of but twenty per cent of our cost price of two dollars. To prove: Our cost of doing business, our "overhead expenses,"

we found to be fifty-three per cent of our gross receipts. Therefore, fifty-three per cent of four dollars and twenty-five cents is two dollars and twenty-five cents, and that last subtracted from the former, gives us back our cost of two dollars. Can you discern anything wrong in this?

The photographer must, provided he wants to amass a competency, devote attention to proper accounting. Nothing elaborate, complicated or expensive, is necessary; but he must keep tabs on his purchases and his earnings. He must ascertain, at stated intervals just how he stands. He must know the cost of chemicals, paper, plates and other material in order to correctly estimate his "factory costs." In the example above given, the two dollar factory cost includes only plates, paper, retouching, chemicals, mounts, folders and the like, and be sure to include all used. Wages, rent, etc., are included in the overhead expense. Having once ascertained this last as well as become posted regarding his fixed charges and operating expenses, in other words, determined his "overhead expenses," it is a simple matter for him to calculate what his sale price must be in order that he may realize a certain net or clear profit. A little painstaking delving into these details will do more to eliminate this assinine seventy-five cents and one dollar style of commercial work than all the talk and profanity that can be poured out against it.

This screed is not held to fully cover all the details, but is designed to be suggestive only. If it but causes one hard working photographer to grab his pencil and figure a little, that much, if no more, good will be accomplished. Correct price accounting is vital; get your pencil and "Git Bizzy."

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Composition is an underlying quality that adds to the beauty of a picture without being itself much in evidence. Many achieve it almost unconsciously as a result of an intuitive feeling for the grace or impressiveness of line, or the balance of masses; but there is no reason why the arrangement should not be calculated, if the effort is not apparent.—ANTONY GUEST.

# At Home Portraiture

**By John A. Schreurs**

With Illustrations by the Author

In response to the request from the Editor, I will contribute a few suggestions as the result of my experience in home portrait work. While there have been some photographers observant enough to see the opportunities developing in this new field and to take advantage of the changing conditions, others have failed to do so. The field is so much broader than that of studio work and the contact with new conditions at each sitting adds so greatly to the interest, that one does not so easily fall into tiresome routine. My remarks may also tend to warn the studio worker that there are patrons who may be overlooking his place of business, patrons that he thinks should enter his door who are having the home worker come to them.

The demand for home portraiture is a step in the evolution of photography, perhaps as a result of the use of the hand camera in the home. The problem of the average studio has been, for the last twenty years, to create, a demand for pictures and to get the people interested therein. Ticket schemes and premiums have been a detriment to the fraternity and they have decreased, rather than increased, the indifference of the desired sitters.

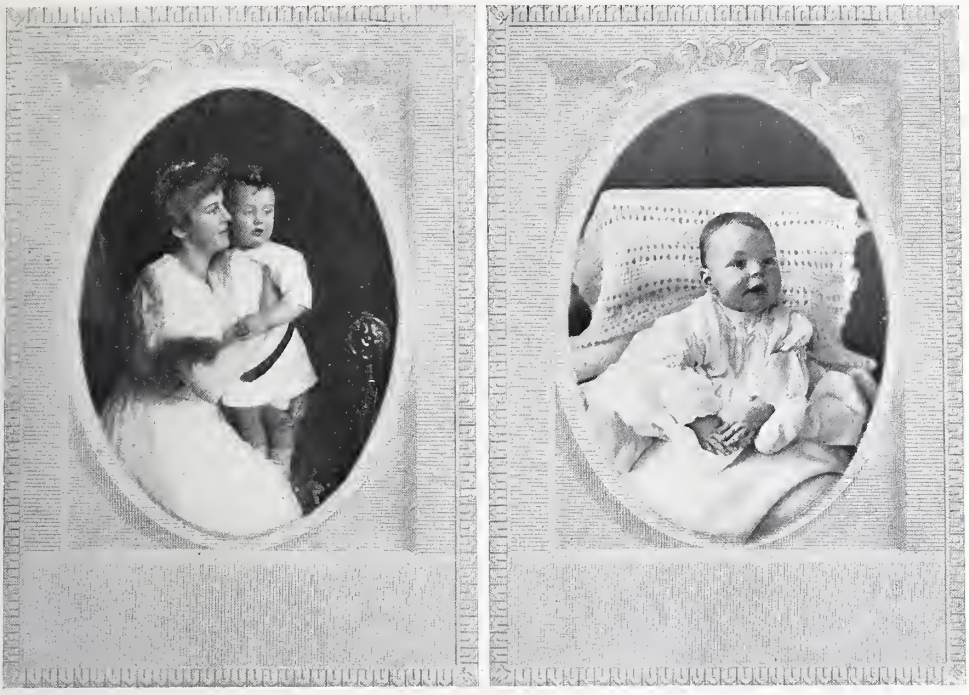
HOME PORTRAITS MAY HAVE THE BEST OF QUALITY

The improvement in type of the homes of today are such that it is possible to find many excellent places for good portraits in almost any residence. The first home pictures were made by the so-called amateur, yet crude as they were, were highly prized and talked about as having a home naturalness about them entirely lacking in the ordinary studio productions. The wide-awake professional could not help but view this tendency with apprehension, but it was futile for him to cut prices in an effort to counteract it. It was not so much the lower cost as it was the more natural though crude results, as the cost of the amateur productions was really more than at the studio. The amateur is improving and so is the professional, but the latter cannot afford to let the home work get away from him.

Some photographers have blamed their lack of sittings at the studios, to the placing of kodaks in so many homes, but no small number of kodak owners are finding out that to make a "bum" portrait is easy, while numerous others who do not themselves own kodaks are learning that they can really be made to look quite "fierce". They go to the studio when a good portrait is wanted and appreciate the work of the profession all the more. And the materials we professionals now have at our command. Look at the reproducuions of Mr. Brady's Civil War pictures, made with the cumbersome wet plate paraphernalia then in use and imagine, if you can, the work it must have been to get the fine results he secured. These pictures should inspire every worker, from the humblest to the most proficient, to do his best. Some day the photographic fraternities of the nation will place the name of Brady at the head of the honored list.

A PLEASING HOME PORTRAIT

Despite the existence of this inviting field the man with a studio has not encouraged the demand for home portrait work. Perhaps he has been too busy with small, unimportant details about his place; perhaps he has said in his haste, "No good portrait could be made except under a skylight," and perhaps he has simply been too lacking in enterprise and initiative. But



CHILDREN ARE MORE EASILY HANDLED IN THE HOME

there is being evolved a new type of photographer, the home worker. Ere long we will see advertisements for home portrait operators at fifty dollars per week. Home portrait work is making some noise, prices are good just now, and the enterprising photographer should get into this field while the tide is high.

The proprietor of one studio, located in a Chicago suburb, knows that three thousands dollars worth of business that he might have had, was pulled out of his territory by a Chicago firm that specializes in home portraiture. And the firm is still after it, employing a home operator who has acquired great skill. Still, a lot of the work turned out today is semi-amateurish in its three dollar lens effects, helped out with a flashlight. It shows, on the part of the worker, a lack of knowledge as to where to find a lighting and the ability to know it when found. But to the man equipped with a good working knowledge of portrait photography, home portrait work presents a great field. The man who loves his work will always render good service, and what, after all, is business but the serving of one's fellow men, the being satisfied only in delivering his best.

But let me get down to a few practical suggestions. When one goes to a home to make pictures he should not carry a lot of backgrounds to be bothered with; he should use the accessories he finds in each home, and not many of those. Home portrait work must necessarily be different from studio products, but that is not the only reason why people want it, the convenience of having the photographer come to them shares honors with results. These are the talking points in soliciting this class of work,—the pleasing results secured and the convenience to the patron.

Avoid a camera-case look in your equipment by using a suit case. Use plates sensitive to red and other dark colors, as they predominate in interiors. Have a long tubing attached to your silent shutter, and use it along with a hatful of patience. The quality of your work will govern somewhat, the price you can ask, but fix a limit and do not deviate from it; say fifteen dollars per order at the start. Home portraits are at present for the few, and, if you can make those in the best homes and please your patrons, success is yours.

If you have a studio and find this work going elsewhere, advertise the fact that home portraiture is in your line. Then, even though you may have a Seavy window background and you can produce good results therewith, try and find pleasure in making this new kind when it is wanted. Make opportunities to show your work, and with it, impress upon the possible customers the advantage to them of having the photographer come to them, of having their pictures made where their own home surroundings give them added value. A good plan is to have a number of albums of selected samples of your work and leave one at each of several homes of likely customers for one or two days. You will then have, in collecting them, an opportunity to call yourself or send a representative to emphasize the many fine points of your work and the advantages of your methods of making such pictures. The one problem of the home portrait worker is to have his work seen, not having a display window as has a studio. Yes, have your automobile in which to go to your appointments; it looks prosperous and is enjoyable.

A good appearance and a self-reliant manner about your work will do much to place your services on a par with that of the professional in other lines, and will also tend to inspire, in the mind of your sitters, that confidence that is so conductive of satisfactory dealings. People have to be talked into parting with their money for pictures, they appreciate an excuse for getting them; so keep posted on what prominent people are doing and find in their activities a reason for their having a pleasing portrait of themselves made by you. Remember that you are living your life at the rate of a thousand miles an hour, so don't wait too long for someone to summon you to do work for them to the amount of fifty or more spendable dollars. Show your proofs in as neat and as "different'" a way as you can devise and insist upon the return of all of them.

I may be thought presumptious in addressing the advanced workers, some of whom are possibly more advanced than myself, but there must be others who, after years in a studio, are anxious to take up the new plan of making portraits in the home, who are only too anxious to tackle uncertain lights and doubtful exposure, and find a method of development suited for both. Studios in Chicago now send operators to any city of good prospects, operators who make the sittings, forward the plates, leaving the rest to be done through correspondence with headquarters. This shows the wideness of the field, a field that the local men should not overlook or fail to cultivate.

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A final word regarding composition. The light must come from one point of the compass, affecting all objects proportionately, and one atmosphere must envelop and surround the whole.—JOHN C. VAN DYKE.

# The Half Way

**By Sigismund Blumann**

Thanks to the Editor, a letter from a fellow subscriber has been referred to me. It is an inspiring bit of personal confession and so like several that have come to me during the past year that it may be accepted as typical. The writer of it complains that when he merely snapped whatever pleased his eye, and kept snapping, patiently, persistently, and extravagantly, he had, at the end of each month, a picture or two which was good; the law of chance doing more for him than his later studied efforts; that the pictures so obtained pleased his uncultivated tastes better than did his more careful attempts with a semi-culture. In short, that the more he read and studied and worked the less pleasure he derived from his camera, till now the pursuit has been dropped in discouragement and one of the pleasures of his life has been lost. The complainant avers, furthermore, that the mass of writing on composition, art appreciation, and so forth, has not taught him to compose or appreciate nearly so much as it has bred in him a pessimism of matters photographic.

Let us beware of passing this indictment with scorn or as a casual matter of little importance. It is closely related to the enjoyments of thousands and means hours and hours of pleasure gained or lost and thousands of dollars of profit to those concerned in the sale of photographic materials and photographic literature. And the fault lies with the writers of books and articles as much as with the amateur. We have, in too many cases, been didactic, pedagogic, at the cost of being human. We, and by we I mean those of us who write for the photographers, have adopted the stock phrases of art without in most instances, having imbibed the spirit of those phrases. They, these last, therefore, naturally appear as empty to our readers and they are so to us. Our efforts have too often been to display our own erudition rather than to enlighten others. We have been too ready to appear as wonderful critics, with epigrams and aphorisms, and have failed to be helpful. As a matter to the point, let me say that a page and a half from the pen of Porterfield,—telling how he made a picture, why he made it so, and what it would have been had he not proceeded as he did, was more useful and did more good in a psychological way than all that the wise and learned writers on Composition, Light and Shade, and so on, have given forth in decades.

Now, I am not belittling the value or need of knowledge of technique. But this is so plain as to be Rooseveltian in its prolixical truism: It does no good to know how to do a thing if you haven't anything to do. An Irish bull, if you will, but listen.

What good should every rule of language, rhetoric, prosody, and a complete knowledge of the dictionary do you, if you had no ideas. What is to be gained from all these deep, comprehensive dissertations on Art when the soul, the vital essence, is missing. We are simply proving to the rank and file of

camera users how deficient they are, we are taking away a confidence of innocence without supplying a courage of inspiration.

Of course the greater fault lies with the amateur who reads and thinks he studies what he reads, and in fact gets only the husks. A little knowledge is a dangerous thing. An old boxing instructor once told me that many a fine, natural fighter is spoiled by half a course. No doubt many a natural artist is rendered inocuous by the first few years of instruction. The newly planted tree dies or seems to die for the time, but, gaining strength and sending its roots deeper into the new soil, it revives and thrives. This correspondent who has given up his hobby because he has learned to see the weakness, the deficiencies of his work, has made one big stride ahead and then laid him down. The next step is to make such pictures as will come up to his cultivated ideals. If he no more gets a good negative from shooting his camera like a blunderbuss loaded with BB shot, trusting to luck and happening on something once in a while, why, he is in pocket. And the pleasure he shall derive from having intentionally made a really fine picture, though it be but once in a year, shall compensate him for the questionable delight of getting something by a hit or miss method. Unless the faculty exist within of doing a thing well, and the spirit of wishing to do it well, he is none the worse off for laying his camera on the shelf and adopting another hobby,—say shooting dice. But the very fact that he has reached the stage of discontent proves the talent there and should nerve him on to finishing the job. Believe me, that mind which has reached an altitude from which it can impartially view itself, is no mean one. The critic who can see his own defects is some critic. And the artist who detects his own weaknesses is on a fair way to real attainment.

To the writer of that letter this word of cheer: Take your camera down and put it in condition. Think out something definite to do with it. Plan something, something fine. Then go to it. God only can be helpful to the fellow who, smugly contented, goes on snapshooting and is unchangingly pleased with his spoils. What God does is to make such useful,—to the dealer in supplies.

To maintain the traditions, this brief peroration:

From the ashes of half-knowledge,—which is discouragement, shall arise to the worthy a full fledged ability that comes of complete knowledge. Phoenix reincarnated.

# PARAGRAPHS PHOTOGRAPHIC

**Kindly Contributed by Our Readers**

USING SLOW PLATES: Some weeks ago my dealer sent me, by mistake, a dozen slow plates of my favorite brand. I kept them, thinking they would come in handy should I have a black-and-white subject for copying. Last week I wanted to make some landscapes and thought I would use up these plates and get them out of the way. The ease with which they developed into good negatives, despite the fact that the exposures given were rather erratic, and the fine quality of the detail and the entire absence of fog or veiling was a delight to the eye. Hereafter I will use these slow plates wherever possible. Years ago we were constantly advised to use as slow a plate as the circumstances permitted, but it seems that the advice was so universally disregarded that it ceased to be offered. But let one make the experiment that I did and the advice will stick in his mind.—W. E. R., Tennessee.

SUNLIGHT EFFECTS: There is a portion of my garden in which, at a certain afternoon hour, there is a delightful play of sunlight and shadow. Several times I have exposed a plate upon this scene, and, although each successive result was examined and studied, I could not determine just why the picture never had the "feeling" of sunlight that the scene itself presented. The other day in trimming one of these prints down to fit a certain space on a mount, I trimmed away the entire sky portion; and behold, the sunlight effect was at once secured. I tried the experiment of covering up the sky portion of other like pictures and found that there was much improvement. The hint may be worth something to others.—O. S. A., Florida.

IMPROVING THE NEGATIVE: One frequently has negatives that could be greatly improved by the addition of some retouching to strengthen or build up rather indistinct or missing lights. True retouching may be beyond the skill of the worker, but if he will flow the glass side with a celluloid varnish he will find that quite crude work will be effective, due to the thickness of the intervening glass. For broad masses it is best to use a little of the powdered lead, applying it with an ordinary paper stump such as are sold at art stores and the like. The varnish, which dries quickly, is made by dissolving ten grains of celluloid in each ounce of amyl acetate and then adding an equal bulk of methylated or denatured alcohol.—T. G. B., New Mexico.

PHOTOGRAPH THE CORNERS: The average amateur, when he wants to get some views, let them be either about the home of a friend or about the street of his own or some other town, avoids the inclusion of the corner of a building or the corner of a street as a feature at all prominent. He does this, perhaps, through a fear that the part of the building so shown will have a cut-off effect. This is a mistaken idea, as a few trial exposures will prove. All

of my own street scenes show a part of the corner building on one side of the foreground and when I wish to make some views of a friend's place I usually include several of these "corner" effects, particularly when there is a path or other opening at that point. The corner of the barn, the corner of the garden, in fact, various kinds of corners, will often prove as interesting as those of the residence itself. True, these corner views require a small stop and too much of the near side of the building or fence should not be included, but the resultant pictures are quite often about the most interesting that a given locality affords.—E. D. C., Vermont.

USING A REFLEX CAMERA: The user of cameras of the reflecting type must not overlook one important point if the instrument be a new one in his hands. The several makes of these instruments, and perhaps those of the same make to a slight degree, vary as to their quickness of response to the first effort put forth to release the shutter. One camera may respond as if equipped with a hair trigger, while another may be patterned after the release of a pile driver. It is hard enough to learn to anticipate, as it were, the proper instant for pressing the button or other release of a given camera of this type, but in changing to another instrument a little preliminary practice should be indulged in or one may find all his moving objects have moved entirely off the plate,—as I did upon a recent occasion.—E. T. R., Washington.

DANGER IN DAMPNESS: When prints on developing paper are inclined to be veiled or fogged, the difficulty is sometimes due to too much moisture having been absorbed from a damp atmosphere. I worked for some time trying to locate the cause of my trouble with some developing paper that I was using a few months ago, and finally gave it up, placing the package of paper on top of the printing box beneath which I expose my prints. Later I thought I would again try the paper; and doing so, had none of the original trouble,—the paper had simply dried out. Since then I have been able to avoid a similar experience by seeing that my paper was kept in a fairly dry place.—W. E. R., Tennessee.

HYDROQUINONE STAINS: Metol being unobtainable I was compelled to use hydroquinone alone; and, not taking proper precautions, got some nicely stained negatives. Stain removers intended for pyro failed to have any effect but I found that a weak Farmer's reducer did the work. This is made by taking the desired amount of clean, plain fixing bath and adding to it just enough of a solution of red prussiate of potash to give it a very pale yellow color. The negative must not be allowed to remain in even this weak solution too long or the image itself will be reduced.—F. G. H., Delaware.

AN IMPROVISED FINDER: When one has some hand camera exposures to make and his finder has been left at home or misplaced, let him look about for a piece of card such as an old paper box lid or an advertising card on the fence. From this cut a rough imitation of a letter H, so proportioning it that the two lower stems will embrace the bellows beween two folds while the other two upper ones will allow the view to just come between them when the eye is placed at the center of the top of the camera back.—F. G. H., Delaware.

# CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

Vol. XXIII San Francisco, California, November, 1916 No. 11

## Price-Cutting Does Not Pay

About six months ago a photographer from the East came into our office to ask concerning a possible location here on the Coast. He had, before coming out, placed an advertisement in our pages, and had received a number of replies, several of which he had investigated. We gave him all the information we could but he had practically decided upon opening a new studio in a town in which he had found the two leading photographers engaged in a price-cutting contest. He reasoned, from observations made in like cases back East, that neither of the price-cutters ever won out, but that a third man who was not in the fight always came out ahead. He would be the third man in this particular instance, as neither of the two other photographers there could be considered as dangerous competition. This week he paid us another visit and announced that the result was just as he expected. One of the price-cutters had moved away and the other was practically out of the running as far as the better trade was concerned. He, our Eastern visitor, had become the leading photographer with one of the former second rate men leading the field a safe distance behind. In this little incident there is a lesson for the man who contemplates cutting prices. Business today, even more than in the past, is a matter of giving better service. Particularly is this true in the business of photography, the product of the photographer being more in the nature of a luxury than a necessity. Service means good work, good treatment and good methods. The photographer must be a good craftsman, must have a good personality and he must be systematic and business-like. The man possessing these requisites rarely if ever turns to price-cutting in order to secure business,—he does not have to resort to such methods. The man whose work is not up to standard, the one whose personality is not just what it should be, and the man whose methods are faulty, these men turn to price-cutting to supply the deficiency; but it never works out except in a very, very few cases where conditions are most favorable. Had not our Eastern friend stumbled into the town where the price-cutting war was on there is a possibility that the one who remained after the other withdrew might have retained his position as the leading photographer simply through the inability of either of the other two to aspire that high. But it is only a chance; the field would have been too inviting for some outside photographer not handicapped by a reputation for low or cut prices.

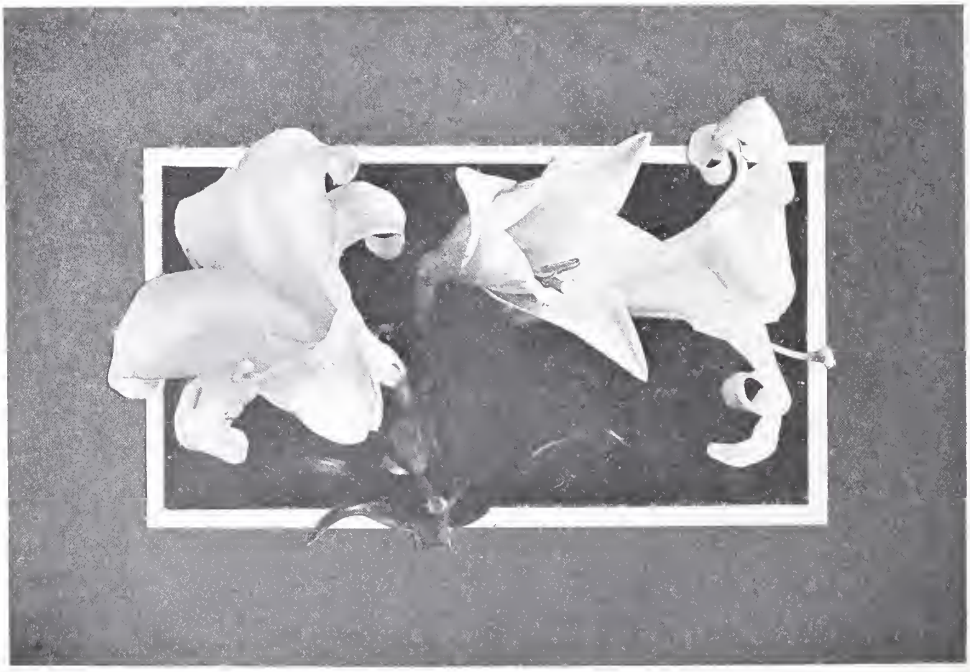
## Photography at the Hilo Fair

As announced in our July issue, the Hawaii County Fair, held in Hilo, Hawaii, September twenty-first to twenty-fourth, included a photographic exhibit for professionals and amateurs. Through the efforts of C. S. Carlsmith, Chairman of the Photographic Section, there was a special contest opened to members of the I. P. A., and three prizes were offered. The first prize con-

sisted of ten dollars in cash and a ribbon, the second a medal and ribbon, and the third a white ribbon. Quite a number of members exhibited and not a few of the pictures submitted by them were of the highest class of pictorial work. The judges were Dr. J. S. Pratt, President of the Hawaiian Board of Health; Major D. S. Bowman of the United States Army, and Mr. Twigg Smith, a lecturer in the Chicago Art Institute. Dr. Pratt and Major Bowman are experienced photographers, while Mr. Smith is both an artist and art critic. The first prize was awarded to C. A. Heald of San Dimas, California; second to T. J. Bones of Los Angeles, California; and the third to C. E. Fey of Laramie, Wyoming. Some noteworthy exhibits were the work of S. T. Dent of Philadelphia; Orrin Dudley of San Anselmo, California; H. Crosby Ferris of Denver, Colorado; Arthur Van W. Eltinge of Syracuse, New York; the Howes of Louisville, Kentucky, and A. Warrington, of Philadelphia.

## A Successful Exhibition

Judging from the extended notices given by all the Portland newspapers, the exhibition of the Oregon Camera Club, opening October fourth at the Central Library in that city, was a noteworthy achievement, a success in every sense of the word. Fifty-five of Oregon's amateur photographers, and there are no better anywhere, placed on display nearly five hundred prints. Many of these pictures have won honors at salons and exhibitions abroad as well as in those held in New York and other Eastern cities. Visitors in large numbers attended and the excellence of the work shown, as well as the interest evoked, portends an increased activity along the line of pictorial work, as well as a greater activity in club matters.



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By F. BELMONT ODELL

# A PHOTOGRAPHIC DIGEST

**Edited by H. D'Arcy Power, M. D., Burlingame, California**

### Permanganate-Persulphate Reducer

A reducer for negatives, which will act proportionately and which is under full control and not erratic in its action, is one of the things for which photographers have been looking for a long time. I believe I have discovered the formula for such a reducer, and I would like to pass it on to the photographic world.

We all know the special characteristic of the persulphate reducer introduced by the Lumiere Brothers years ago, namely, its selective tendency to act upon the denser portions of the image, and a very valuable agent it has proved, especially when used according to the Bennett formula.

But the persulphate reducer has the disadvantage of being erratic in many hands; for instance, a hardened and an unhardened film may behave quite differently in it; in fact, the hardened film may refuse to reduce at all. Some people say that the reducer acts more satisfactorily on an undried negative, and my experience agrees with this; and dried negatives, it is said, reduce more satisfactorily if soaked in water for one hour before reduction.

Others again say that images developed by certain developers are unfavorable to its action.

Then we all know how it may hang fire for some time, and then go off like an express train, and reduction may be carried too far before the negative can be plunged into the sulphite bath.

Again, the persulphate reducer is not proportional in its action, and though its selective action is very valuable when needed, yet a proportional reducer would generally be of much greater utility.

The permanganate reducer, introduced by Namias, in my opinion, is a very valuable one, much more so than the persulphate, and I cannot understand why it has not been more popular. I have not found it to be an unclean reducer, as Bennett avers, and as far as stains, I have never met with them when using an after clearing bath of potassium metabisulphite.

But when considerable reduction is desired, this reducer has a tendency to eat out the half tones or more delicate portions of the image; this selective action, however, is very small when compared with Farmer's reducer. So, practically speaking, when only a slight reduction is needed, its action may be considered proportional.

The following is the formula I have generally used when employing potassium permanganate:

| | |
|---|---|
| Potassium permanganate, one per cent solution | 100 minims |
| Sulphuric acid, ten per cent solution | 50 minims |
| Water, to make | 4 ounces |

With this reducer, while reduction proceeds regularly enough, the exact time to remove the negative is not always certain, for the image may get a little clouded with a brown stain or deposit, an oxide of manganese. This, however, absolutely disappears in a clearing bath of one per cent potassium metabisulphite.

It occurred to me one day to try the effect of combining these two reducing agents, when I found to my surprise that the disadvantages of each reducer had absolutely disappeared! I also discovered that by varying the proportions, a reducer was obtained which, as far as the eye could judge, appeared proportional in its action; that is to say, suppose you happen to over-develop a negative, then by subsequent reduction in the following reducing solution, a result is obtained which, as far as the eye can see, is the same as if development had been stopped at the right stage.

This I have tested as follows: Two plates having the same exposure were developed for different times; after washing, the denser negative was reduced in this reducer and cleared, with the result that the two nega-

tives are now almost impossible to distinguish.

Now to enumerate: The action starts right away, and is quite regular, not hurrying up like persulphate alone. It is not sensitive at all, like persulphate, to small traces of hypo from imperfect washing. In fact, with it I reduced with perfect ease a negative in which I could still just taste the hypo. A hardening bath on the film does not interfere with its subsequent reduction in this reducer, the action being regular, though somewhat slowed. As yet, in my hands, it has never shown the slightest erratic action. During reduction it is clearer in its action than the acid permanganate reducer, thus the degree of reduction can be more perfectly estimated. The solution, when in use, appears to keep in working order longer than the acid permanganate solution; and it is a proportional reducer, as far as the eye can see.

The reducer, which should be made up just before use, has the following simple formula:

Potassium permanganate,
one per cent solution....20 minims
Ammonium persulphate...10 grains
Water, to make..... 2 ounces

The permanganate is best kept in a one per cent solution, taking twenty-four grains in five fluid ounces of water. The persulphate should be weighed out, or, if more convenient, one "tabloid" persulphate, eleven grains, near enough, may be used. You will notice that the reducer is weak when compared with other formulæ, but it acts quite rapidly enough. After sufficient reduction the negative should be quickly rinsed in water and cleared for five minutes, quite, in one per cent potassium metabisulphite, or in an acid fixing bath, I use the former, and then washed and dried.

Here in the Solomon Islands I have no opportunity for making exact photometrical tests, and so I have had to rely on visual tests only, which may not be quite accurate. If some scientific man like Mr. Renwick or Dr. Kenneth Mees were to investigate the formula, he would probably find that the proportions might have to be adjusted to get strict proportional action, and I think the reducer merits such investigation.

I must say, in fairness, that the tests on which I have based this article are more limited than I should desire, but I must plead the difficulty of photography in a climate in which one rarely can obtain water under 80° F., and in which photographic materials, when opened, deteriorate so much in two or three weeks as to be almost useless.—Norman C. Deck in *Australasian Photo-Review*.

### Exposure In Stereoscopy

Most stereoscopic workers are agreed that a good slide should be soft in gradation, and, in fact, one glance at a hard slide in the stereoscope is enough to prove the truth of the generally accepted rule. But not enough consideration seems to be given to the manner in which softness is secured. Too often the worker relies mainly on over-exposure, which affords the easiest way of arriving at a soft print. This tendency to over-expose is due possibly to the fact that in ordinary single-print photography slight over-exposure is usually adopted by preference. The rule, "expose for the shadows," is very generally followed, but in any well-lighted subject the lights must be over-exposed to some extent if we expose so fully as to bring out all details in the shadows. If we adopt the same rule of exposure in stereoscopy the over-exposure of the lights becomes apparent, while it is usually easy to see that the shadow detail is unnaturally obvious and too obtrusive. Shadow detail is more obvious in a stereoscopic slide than it is in a single picture, and experiment will show that in Nature it is also somewhat more obvious to binocular vision than it is to one eye alone. Plenty of shadow detail in a single picture therefore looks natural to two eyes, whereas the same amount in a stereoscopic slide may appear unnatural in the stereoscope. If in stereoscopy we reverse the rule of exposure referred to, and expose for the lights, letting the shadows look after themselves, we shall, as a rule, get two pictures that look slightly under-exposed when seen separately, but look perfectly natural when seen combined in the stereoscope. To avoid hard prints we must, of course, be careful in the printing not to clog up the shadows, and very usually it will be best to adopt a warm tone process that naturally tends to give soft results. It will be found that the stereoscopic slide will reveal shadow detail that is almost, if not quite, invisible in the separate prints, therefore the prints should neither be condemned nor passed until actu-

ally tested with a stereoscope.—*British Journal of Photography.*

**Paper Negatives For Enlargements**

In these days of increased prices and prohibited photography, the amateur photographer has to turn round and consider how he can pursue his hobby at home. What more natural than that he should overhaul his stock of negatives and see how many will be worth enlarging?

The question of the cost of plates for this purpose need cause him no distress or damp his ardor; he can, throughout the whole process, use paper. Moreover, he can make use of practically any and every kind of paper he may happen to have to hand.

And so he may start to work. Let him begin by selecting those negatives that will require no touching up, but that will yield a technically perfect print. These prints will be the "positives" from which the enlarged negatives are to be made. They may be made upon printing-out paper, and need not be toned. They should be printed until they look just right. They are then ready for further work which will be described presently.

He now turns to those negatives that are not quite so perfect, and require spotting and touching up generally. Well, he may leave them alone, and just make his prints right away, but this time he must use bromide or gaslight paper to make them on. If the negative is "flat", he must use gaslight paper; if correct in gradation, but "pinholey," etc., he must use bromide paper.

It is upon these contact-paper positives that he must make his corrections and repair the defects of the negatives.

Should, however, there be a great amount of work to be done, especially if it be of a minute character, this paper positive must be made by enlarging and not by contact. The size of the enlargement may be just that size that seems to him to give him the most scope for his handwork, 6½x8½, 8x10 or even 12x15.

Now, having made his positives, both upon printing-out paper and bromide paper, let him prepare them for copying, for that is the method by which the enlarged negative is to be made.

It will at once occur to him that he has almost unlimited possibilities at his command. Of course, the bromide and gaslight papers must not be of the glossy kind, but of the surface known as semi-matt or matt. They should have been exposed and developed so that they look just right for the album or frame, barring, of course, their defects.

These may be corrected by means of water-colors, pencil, chalks, or india ink with or without the admixture of water.

When as much work as has been deemed necessary has been done upon the prints, they are ready for copying. As all alterations have been made in black and white, they may be copied by daylight or artificial light.

Now, here again use may be made of either gaslight paper or ordinary bromide paper,—matt, of course, as before—but not printing-out paper, since it is not contact work. It will rarely be necessary to use gaslight paper unless the paper positive is very flat, and even then it could be intensified with mercury and ammonia. Exposure and development should be such as to yield a good, strong negative, not with degraded whites, as for contact printing, but with just the same contrast as a perfect enlargement should possess.

This enlarged negative may be of any size, or several may be made of different sizes if preferred; but one convenient size for all is best, as from it any size enlargement may be made, either smaller or larger, by copying.

Upon this negative may be done all the necessary handwork to ensure its yielding the finished, perfect picture. In copying, if the paper positives or negatives are evenly illuminated, no grain will show—indeed, a semi-matt paper has no grain worth mentioning.

Now, upon the negative the worker is not restricted to black and white. A yellow wash will render a sky darker; a red one, darker still; even greens will give a variety of tone. But, generally speaking, black and white work is best as well as more simple.

Here, then, is a process of making enlarged negatives that is both simple and inexpensive. There is even no necessity to use the best brands of bromide papers. Cheap "seconds" are advertised in all the photographic journals, and will prove quite satisfactory. Moreover, the great advantage paper has over glass is that we may alter sizes at will, enlarge or reduce from the same negative, and work upon its surface to an almost unlimited extent, to say nothing of there being no risk of breakage or inconvenience in storing.

Figures in landscape may be added by the simple method of pasting on the print any suitable subject cut from another print.—Sydney H. Carr in *Amateur Photographer.*

### Soft Bromides From Hard Negatives

It happens occasionally that a negative gets a little over-developed and prints hard, and it becomes very difficult to get a nice soft result. This defect often arises in hot weather, when developers are more energetic than usual, especially when developing in tanks, or dealing with panchromatic plates in total darkness. One is nervous about reducing such negatives, as there is always a certain amount of risk attending that process. Then the negative may be retouched and varnished, and one naturally wishes to avoid cleaning all the work off; yet the ordinary developer often fails to give a satisfactory print. Amidol as in the usual formula will sometimes give the desired result, as it generally produces a softer effect than monomet and hydroquinone. But even normal amidol may fail, and then some special form of it is needed. I think I have found it in the following:

| | | |
|---|---|---|
| A: | Amidol ..... | 120 grains |
| | Sodium sulphite ..... | 2 ounces |
| | Sulphuric acid, strong | 30 drops |
| | Water ..... | 10 ounces |
| B: | Sodium carbonate.... | 1 ounce |
| | Water ..... | 10 ounces |

The proportions of soda solution or B can be varied to suit the negative; the harder it is the more soda may be used, but the developer will soon discolor if much of the soda is added. This developer should be diluted to suit the negative, the more water the softer the print; it may be used very dilute.

The exposure will be found to be very short. A negative needing an exposure of thirty seconds for a normal developer will, perhaps, require only five seconds with this one. It will, of course, be noted that it contains no bromide. The image usually appears very quickly and total development is very short, sometimes not more than a minute before the print is sufficiently developed. The rapidity of development makes it difficult to handle a number of prints at once, but dilution of the developer greatly reduces its speed. One would expect that such rapid development would give prints of poor color, a rusty black for instance, but the color is a good cold black in the shadows, with silvery gray lights. The print, however, does not seem to tone very well with sulphide, as the whites become very yellow, probably due to the shortness of the exposure and development without bromide.

The stock or A solution will not keep very long, and as it may be regarded as an emergency developer only it is best to make it up in small quantities from time to time when required. It may be thought that so rapid a developer would be beyond control when a number of prints are wanted alike, but by using the developer considerably diluted the speed is reduced, and if only a small number of prints are put into the developing dish at one time it is not difficult to secure uniformity.—H. H. H. H. H. in *British Journal of Photography.*

### Photographic Uses of Formaline

*Il Corriere Fotografico* for August contains a useful article on the above subject by Comirias De Albroit. The writer points out that formaline can be used for gold toning, giving, with printing-out and bromide papers, a rich brown tone, the formula advised reading: Thirty-two ounces of water, fifteen drops of formaline, and one ounce of a one per cent solution of chloride of gold. He states that with this bath the unpleasant purple effects of a cyanide gold bath are entirely obviated. Another use is as a developer, particularly in the case of process plates where extremely clear reproductions of black and white line subjects are required. The formula offered is as follows: Six hundred grains of hydroquinone, forty drops of formaline, and fourteen ounces of water. It will be seen that this developer is free from alkali. Formaline is also indicated as a hardening agent, decidedly superior to alum for plates and papers, for which purpose a strength of about five per cent will be found useful. I would like to add to the above remarks my own experience with formaline as an almost perfect preventative of green stains in autochrome development. For a long time I have scarcely had a single failure in this respect, my procedure being as follows: At the end of development wash the autochrome for one minute in plain water, next immerse one minute in a ten per cent formaline bath, and then wash off the surface fluid and immerse immediately in the permanganate reverser.

# THE CAMERAMAN'S PAGE

**Edited by Hal G. Hall**

**A Practical Department of Comment on Methods and Apparatus**

### To Do or Not To Do

J. T. W., Lincoln, Nebraska, writes for advice as to whether or not he should take up motion picture camera work or the medical profession, and also as to how he can learn camera work professionally. While we do not know whether J. T. W. is temperamentally best fitted to be a doctor, or a cameraman, or perhaps a lawyer or butcher, the following facts may well be considered by our correspondent or anyone else thinking seriously of taking up camera work.

In the first place the field for the motion picture photographer is limited by the very nature of conditions as they exist and as they will, to a large extent, continue to exist. In the dramatic film business the market for productions is limited by the number of people who are willing to go to see picture shows. And as a cameraman usually "shoots" several hundred feet of film a week, only a limited number of cameramen can possibly find employment in dramatic film production. In addition, it is a fact that, instead of rapidly increasing as in the past, the demand for new films has now reached its limit, and there is at present a state of overproduction; the demand being for better, rather than greater film productions. The time has passed when any film found a ready market. Hundreds of films now lie shelved awaiting opportunity of profitable release, many others barely surmount the strong competition, and only a few dramatic and comedy films are highly profitable. Even with the present overproduction, there are more "crankturners" than jobs. There are hundreds of men who can "run a picture camera", but who are not at this moment doing so because of no demand for their services. While literally, anyone of average intelligence can learn to "run a picture camera", not everyone that can do so is a cameraman, and not every cameraman is now finding profitable employment.

In an early issue we will discuss the definite requirements for the successful cameraman, but the fact remains that unless one is especially qualified, the chances of successfully breaking in as a cameraman, in competition with those already in the field, are about equal to those of a certain wax dog that chased a certain asbestos cat through a traditional place. Assuming that one is determined to learn camera work, he usually works his way by the laborious service as assistant cameraman,—the assistance consisting mainly of carrying a heavy tripod, camera, magazines and attachments where an automobile cannot go. For this service a small wage is sometimes paid, but so great is the glamour surrounding the work that, here on the Pacific Coast a cameraman can easily get a dozen assistants who will toil faithfully and long for the mere experience. In fact, it is usually extremely difficult to get an engagement as an assistant, even at little or nothing per week.

As for motion picture "schools", some are out-and-out humbugs, while others can only give the photographic principles without giving an adequate instruction in studio practice. A motion picture school cannot incur the expense attending the production of pictures as they must now be produced, and a studio producing real pictures cannot afford to have anyone "around the lot" who is not doing his share in helping, rather than hindering the work of production.

### A Portable Laboratory

Something new in developing apparatus was brought to our attention recently. The system uses the same general idea as does the Eastman plate and film tanks that have come into such general use. Preferably just enough developing solution is used to develop one batch of film, although a stronger developer can be used more than once, or a once used developer can be "sweetened" by the addition of more of the active reducing agent.

Designed originally for the use of the cameraman when some distance from the

laboratory, especially in the tropics where film does not keep long after removal from the can, the Stineman tanks are effective and occupy very little space. Best of all, in view of the present high cost of developers, these tanks use a minimum amount of solution. The fifty-foot tank requires but one-half gallon of developer, and the two-hundred foot tank only two gallons. As no more solution is used than is barely necessary to cover the film, uniformity of results as well as economy are achieved by using pyro,—now the least expensive, and never the least desirable developer,—of just sufficient strength to develop one batch of film.

For use with toners, many of which are now extremely expensive, a chemical-proof, baked, enamel tank and kit is provided. This permits the economical use of the toner, as the necessity of filling a large tank is avoided when perhaps only a few hundred feet of film are to be treated.

The principle of the Stineman tank is extremely simple, consisting merely of a spiral brass frame on which the film is easily wound, after which it is dropped into a round, spun brass tank. If the chemicals are thoroughly dissolved, no further attention is required after the removal of possible air bubbles by gently lifting and lowering the frame a couple of times, as it is placed in the developer.

We have tried one of these tanks and found it to be entirely satisfactory. No difficulty is experienced in using a pyro developer for either positive or negative film, when no effort is made to use it more than once. It would seem that this new tank should prove a money saver in regular laboratory work as well as for locations in out-of-the-way places. Sketches and detailed explanations of this system will be given in another issue.

### A New Lens

Cameramen, occasionally compelled to work in confined situations, can now obtain a short focus lens particularly adapted to such cases. The Goerz American Optical Company recently placed on the market a lens of one and five-eighths inches focus, in addition to the usual two inch, three inch and an intermediate focal length. The new Kino Hypar, an uncemented, f-3.5 lens, is the first motion picture lens of less than two-inch focus having that speed. Accurate focussing is possible at full aperture and good definition is secured at the moderately large apertures most commonly employed. Using the shorter focus lens at the same relative apertures, greater depth of focus is of course obtained than with the two-inch lens. Heretofore, lenses of less than two-inch focus had maximum aperture of f-4.5, and these gave such great depth of focus and comparatively poor illumination that accurate ground glass focussing was somewhat difficult.

While, in some cases, the perspective with the shorter focus lens is not as pleasing as with one of longer focus, the former includes almost twenty-five per cent more angle than does the two-inch lens. This additional angle is frequently of material advantage when the camera can not be removed quite far enough away from the scene on location, or when it is desired to somewhat exaggerate the usual perspective. At times the greater depth of focus of the short focus lens is also desirable.

The Kino Hypar is the shortest focus lens that can be fitted to the Bell & Howell camera and it can also be fitted to most of the other makes without disturbing the shutter.

### Translucent Borders

The use of celluloid of various colors for before-the-lens mats permits of a wide range of effects. Red celluloid gives about the same effect as an opaque mat, while light yellow permits a peculiar translucence in the higher lights of the matted portion of the picture. In a coming production, Bessie Barriscale will appear, with two other "Irish lasses", in the trisected opening of a mat cut clover leaf shape from the light yellow celluloid, while many of the other scenes will be vignetted by dark red celluloid mats cut with ragged inner edges. C. DeVinna is the cameraman for this production. In an early issue we will have something to say about mats and irises in their relation to stops and focal-lengths.

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No necessity really exists for the custom of using bars, blondes, cafes and red-light for settings for stories and scenarios—better material may be found in the homes, decent clubs and in circles of Christian Science.—Chauncey M'Govern.

# THE AMATEUR AND HIS TROUBLES

**Conducted by Fayette J. Clute**

### The Dealer's Difficulty

When an amateur leaves a roll of film for developing and printing the finisher assumes that he wants the regular thing and that "regular thing" is what the finisher has found to give the greatest satisfaction in the majority of cases, namely, a print quite decidedly on the hard side. He knows that softer prints are more desirable and perhaps tried, at some time in his experience, to convince his customers that they were so, but the frequent appeal for prints with more "snap and sparkle", as one customer explained in my hearing, convinced him that the best policy was to give them what was wanted. When a customer comes in with a roll it is assumed that he has been getting the "regular thing" and so he is given that style of print; in fact, the dealer would prefer to make them all that way as long as the major portion are so wanted. But occasionally a customer will drop in, one who has not by reason of a wrong idea or previous experience in having his work done, acquired the "snap and sparkle" desire, and when he gets his prints he is disappointed. What he should do is to show the clerk a print such as he wants and have it understood that work of like kind as far as the negatives in question will permit, is to be delivered. Of course, if his exposures have been undertimed, particularly on contrasty subjects, it will be impossible to give him prints having the quality of those from fully timed negatives; but, with fairly well timed films he should be able to get good prints entirely lacking in the rather chalky appearance of those so uniformly handed out in compliance with the popular demand. We advise showing the clerk a print, for the simple reason that just what is wanted is rather hard to put into words that mean the same to the clerk as they do to the customer. What one person thinks is a hard print may seem fairly soft to another, and what one man may call a soft print will, to some other appear so flat as to be out of the question. Almost every dealer has a book of samples showing the work done with different models and sizes of cameras and these prints should serve as examples, and we wonder why it is that with these prints before them the average amateur will complain that the prints handed him from his negatives are lacking in vigor when they have even more contrasty.

### Make a Few Interiors

What can be more interesting to the one who likes to use his camera than the making of an experimental exposure or two on an interior about his own home? Too many owners of hand cameras imagine that interiors are out of their field, simply because they do not have a wide angle lens and a view camera. This is a mistake. True, a wide angle lens is necessary if one is desirous of making certain particular interiors, but where one can pick his subject as he can in his own home, plenty of good material will be found that is amenable to the ordinary hand camera lens. Folding doors often permit one to get far enough back to include a generous part of a room in the picture space, and even when one can get only a small portion of a room, by careful selection a most interesting picture is often secured. With the relatively long focus lens the perspective is better and the danger of distortion in near objects is greatly minimized. Even a tripod is far from being a necessity, as a pile of books or a small box placed on a table or other piece of furniture will supply a support for the camera and one that permits of considerable adjustment. Not even a shutter giving time exposures is required. All one has to do is to get everything ready, drape a black cloth over or hold one's hat in front of the lens while setting the shutter open, then withdraw the protection for the required time, returning it and closing the shutter. And do not be afraid of giving too long

an exposure. Interiors are very rarely overexposed and it is well worth the trouble to see just how long one does have to expose in order to meet with this experience. Make an interior or two when you have a spare afternoon and want to find something that can be done indoors; it is well worth the time spent.

### The Flat and the Roller Squeegee

An Oregon correspondent writes to ask which, a roller or a flat squeegee, we would recommend. Our correspondent seems to have the idea that the two are used for the same purpose, a mistake that is all too common. The flat squeegee is most useful where no great pressure is required, where there is no danger of abrading the surface, as with the back of a print, and where the desire is to rub out all air that might form bubbles beneath the surface, as when putting prints down on a squeegee plate. The roller, on the other hand, is most suitable when considerable pressure is required, when there is danger of rubbing the surface or the face of a wet print, and where the persistence of an occasional small bubble of air is not particularly objectionable, as in mounting. Our correspondent should provide himself with a roller squeegee for print mounting and with a flat one to be used in removing surplus water from a pile of prints, for squeegeeing prints to ferrotype plates; and, if he does carbon work, for the various manipulations therein.

### Send For Those Booklets

Now that the winter months are upon us the long evenings give opportunity for reading over and digesting some of the valuable booklets and the like offered by our advertisers. We do not wish to stimulate the inquiry for these among those who are not interested, but we are quite sure that our readers are, in many cases, neglecting an opportunity that they should not overlook. Almost every mail brings us queries that are answered very fully by one or more of these advertising booklets, in fact, the amount of information that some of these little books contain almost takes them out of the advertising class. Take those issued by the Eastman Company and mentioned from time to time in their advertisements; the Cyko Manual of the Ansco Company, "A Short Talk on Negative Making", issued by the Hammer Company; the Autochrome booklet, obtainable of R. J. Fitzsimmon of New York; the "What Lens Shall I Buy" booklet of the Bausch & Lomb Optical Company; "Iso Landscape Photography", issued by the Cramer people and numerous others. They are all full of valuable information and one can hardly do better than send for those that he feels will interest him. Go through the advertising pages of this issue and write for those you want. Then watch for the announcement of new ones from time to time. And when they come to hand, read them through and put away for future reference. One never knows just when he will want some information that he remembers having seen in a booklet of this kind some time before.

### Mounting Stereograms

On page 388 of our September issue we gave, under the above heading, some suggestions that included the following: "As to trimming, the left hand picture should show a little more at the left end and the right hand one more at the right hand end". One of our correspondents, J. Homer Smith of Washington, D. C., points out that this is wrong, explaining that the right eye, when looking through a stereoscope, can see more of the view to the left than can the left eye, and the left eye can see more to the right. The paragraph quoted above should therefore read:

"As to trimming, the parts of the picture which are to be adjacent, i. e., the left hand end of the right hand picture and the right hand end of the left hand picture may be trimmed as little as possible, in fact, only enough to obtain the correct separation of the pictures, while the outside ends of the pictures may be trimmed quite severely as the eye cannot take in these parts. However, if the near or adjacent ends of the pictures have been trimmed by some necessity it is not necessary to trim the outside ends more, and if there is plenty of room on the card there is no necessity for trimming the outside ends at all."

We believe Mr. Smith is right in his contention. We were led into error by examination of a stereoscopic picture, the first to hand, one put out by a photographer who should know just how the trimming is done. Turning to other samples of the same man's work we find they do not follow any rule. Some are as Mr. Smith advises, others show no difference.

# INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

## Officers of the I. P. A.

F. B. Hinman, President, 1369 South Washington St., Denver, Colo.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 413-415 Call Building, San Francisco.

Charles M. Smythe, Director Post Card Division, 1160 Detroit St., Denver, Colo.

NOTE.—I. P. A. members, or applicants for I. P. A. membership, desirous of joining the Post Card Division, should enclose three or more cards of their own make to the Director for approval. If they are of requisite quality, a letter "X" will be placed after the member's number, indicating membership in the Post Card Division. Always request a new notice in renewing your subscription. When desiring a reply from the Director, kindly enclose stamp. Address Charles M. Smythe, 1160 Detroit St., Denver, Colo.

James B. Warner, Director, Stereoscopic Division, 413-415 Call Building, San Francisco.

NOTE.—All stereoscopic slides sent to Director for the circulating sets must be mounted, titled, and show the maker's name and I. P. A. number on the back of mount. Notify the Director how many mounts can be used, and a supply will be sent you by return mail.

George E. Moulthrope, Director Lantern Slide Division, Bristol, Conn.

Edward B. Cowles, Secretary Lantern Slide Division, 11 Oak St., Bristol, Conn.

STATE SECRETARIES.

California—A. E. Davies, 695 61st St., Oakland.

Idaho—Eugene Clifford, 902 9th Avenue, Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 210, Union Station, St. Louis.

New York—Louis R. Murray, 21 Clark St., Ogdensburg.

Oregon—F. L. Derby, La Fayette.

Texas—Emmett L. Lovett, Roby.

Wisconsin—F. W. Freitag, 500 Monument Square, Racine.

NEW MEMBERS.

4245—Willia Nelson Maguire, Jetmore, Kansas.
3¼x5½, various papers, of landscapes, children and miscellaneous; for landscapes, clouds, and children. Class 1.

4246—E. A. Bell, Castella, Cal.
Class 2.

4247—Lee H. Darling, 1315 6th Avenue, Worthington, Minn.
3¼x5½ and under, developing papers, of landscapes and miscellaneous subjects, also California views including set of Busch Gardens at Pasadena; for birds, wild animals, insects, or any good pictures of interest. Class 1.

4248—Ira W. Guldner, P. O. Box 483, Hutchinson, Kans.
3¼x5½ and 5x7, developing papers, of general scenery; for work of same kind. First class work sent and same expected in return. Class 1.

4249—Roy A. Phillips, 1113 Turner Ave., Grand Rapids, Mich.
Any size up to 8x10, developing papers, of various, stereoscopic, etc.; for anything of interest. Class 1.

4250—Walter C. Staples, 259 Maplewood Ave., Portsmouth, N. H.
Class 2.

4251—J. H. Madison, Petaluma, Cal.
3¼x5½, developing paper, of views of California; for views of general interest. Class 1.

4252—C. J. Palms, Box 115, Greenville, Pa.
3¼x4¼ and 4x5, developing paper, of landscapes; for views of general interest.
Class 1.

4253—Juan L. Teanlai, Box 43, 8 General Luna, P. O., Naga, Ambos Camarines, Phil. Is.
5x7 and 6½x8½, various papers, of landscapes, buildings, and street scenes; for the same. Post cards only. Class 1.

4254—F. A. Radke, Coram, Cal.
3¼x5½ and 4x5, developing papers, of mountain scenes, snowscapes, mining and cabin scenes, also several log and shake cabin scenes; for landscapes in general. Class 1.

4255—J. Severt Anderson, Omemee, N. D.
Up to 8x10, developing paper, of Dakota farm scenes and general views; for local scenes of sender. Class 1.

4256—J. A. Currie, 949 34th St., Oakland, Cal.
2¼x3¼, 1⅝x2½ and 3¼x5½, various papers, of P. P. I. E. views, Canadian Parliament buildings, Ottawa; Canadian, Oakland and other views; for figure studies, P. P. I. E. views and any other subjects of general interest. Class 1.

RENEWALS.

1747—W. C. Cosby, Box 338, Abilene, Texas.
3¼x5½, developing papers, of landscapes, ranch scenes, prairie dogs and horned toads; for landscapes, historical scenes, bathing scenes, figure studies draped and undraped. Post cards and good work only. Class 1.

3295—Jas. B. Herrick, Jr., P. O. Box 1105, San Diego, Cal.
1⅝x2½ to 8x10, developing papers, of landscapes, marines and bathing girls; for nudes and bathing girls. Class 1.

3326—Corbin B. Stambaugh, Browning, Ill.
Class 2.

3996—Paul M. Elder, Box 362, Coeur d'Alene, Idaho.
Class 2.

4156—Thos. P. Mason, 2333 Lawn Ave., Kansas City, Mo.
Class 2.

4162—Samuel T. Dent, 2744 North Ringgold St., Philadelphia, Pa.
Class 2.

CHANGES OF ADDRESS.

3212—G. L. Massey, Box 346, Bisbee, Ariz.
(Was General Delivery.)

3281—B. W. Lemley, Thorp, Wis.
(Was Chicago, Ill.)

3738—Wm. F. Prevett, 1848 Ogden Ave., Chicago, Ill.
(Was 1133 W. Jackson Blvd.)

4152—Thomas J. Bones, 310a State St., Santa Barbara, Cal.
(Was Los Angeles, Cal.)

4193—1st Lt. W. H. Smith, 33rd Mich. Infty., Elko Club, El Paso, Texas.
(Was Grayling, Mich.)

4242—Oliver Saylor, 1884 Pacific St., San Luis Obispo, Cal.
(Was Lompoc, Cal.)

# CLUB NEWS AND NOTES

**Club Secretaries and others will oblige by sending us reports for this Department**

### Photographic Art Exhibition

The American Institute of Graphic Arts has once more justified its existence by showing at the National Arts Club, 119 East Nineteenth Street, New York, a most interesting and instructive collection of pictures made through the aid of photography, the exhibition to remain open until November tenth.

Edward A. Kendrick presided at the opening of the exhibition and introduced Pirie MacDonald, "Photographer of Men," who compared the photography of today with that of the early days. Dr. Arnold Genthe told of the progress in color photography, and W. L. Palmer of the great industry the "movies" have become. Professor Charles F. Chandler briefly described the principal discoveries on the action of light on various substances, illustrating his talk with examples of the different processes.

From the Chandler Museum at Columbia University were brought precious treasures, from a complete apparatus for making daguerrotypes to some of the most beautiful prints made by photogravure in color. Among the curios are photographs of President Lincoln at various periods of his career and old silver prints and daguerrotypes of other prominent men and women of the past.

An educational exhibit by the Eastman Kodak Company, with portraits of the men who pioneered photography, and beautiful examples of the very latest developments in the recording of color by photography is also well worth seeing.

### Mr. McGinnis Lectures in Denver

Stanley McGinnis, the well known autochrome worker and lecturer, addressed the members of the Colorado Mountain Club on "Beauty and Grandeur Near Denver", Friday evening, October sixth. The attendance was surprisingly large and the Auditorium of the Denver Tramway Company proved none too capacious for the club members and their families who availed themselves of the opportunity of learning of the scenic beauty of the country surrounding their city. The lantern slides shown were the usual good style for which Mr. McGinnis is noted and the address itself showed no little improvement over the usual rather stilted style of the lantern slide lecturer. Mr. McGinnis took the opportunity to explain that the statement, made in the announcement sent out, that "Many of his slides were made while climbing peaks" was evidently intended as a bit of witticism, as lantern slides were generally made in the more peaceful confines of a photographic dark-room and he had no recollection of having himself indulged in the mode of locomotion suggested by the phrase that the Mountain Club seemed so fond of using.

# OUR BOOK SHELVES

### "Texas, The Marvelous"

Nevin O. Winter, the author of this, the latest of the "See America First Series", not only gives us the history of this State of the Six Flags in an interestingly and informative manner, but he describes the country and its people with all the intimate detail that bespeaks not only a full and complete knowledge of, but a fondness for the State's broad domain. Texas, which has been under six different sovereignties, has a history of change and struggle that has seemingly resulted in a people somewhat different from those of other States, and the development now going on has the same quality of "bigness" that characterizes these people and

their State. Mr. Winter is a charming writer and in this book he has displayed an appreciation of a worthy subject that results in the reader's enjoyment as well as instruction. Six plates in colors, forty duogravure illustrations, with a map, add to the completeness of the work. The price is three dollars and fifty cents net; carriage paid, twenty-five cents extra. Published by The Page Company, 53 Beacon Street, Boston, Massachusetts.

**"Towards An Enduring Peace"**

This is the title of a symposium of peace proposals and programs put forth during the past few years, the compilations being by Randolph S. Bourne, with an introduction by Franklin H. Giddings. This book is not being published in an ordinary sense of the term, being intended primarily for libraries and for the shelves of men and women seriously interested in international affairs. As a book covering the various peace proposals and kindred matters it represents the fruit of much careful work on the part of the editors, and as a production calculated to have a most informative and instructive effect it is to be highly commended. Such distribution of the book as will be made will be without cost, and those of our readers who are interested therein can no doubt secure a copy by applying to the American Association for International Conciliation, 407 West 117th Street, New York.

**"How To Take and Make Moving Pictures"**

The above is the title of a handsome little booklet of about fifty pages filled with most informative matter in keeping with the title. This book is issued by the Ford Optical Company, 1029 Sixteenth Street, Denver, Colorado, and sells for the modest sum of thirty-five cents post paid. The book contains some twenty-five or thirty illustrations that adds much to the clearness of the instruction that is given. An idea of the field covered can be gathered from a few of the chapter titles which are as follows: What is a Motion Picture? The Camera and its Construction, Lenses and Formulas, Developing the Films, How Films are Printed, Toning, Dyeing and Coloring, Title Making, Misframing, Causes of Unsteady Pictures, Flickering and Electric Markings, Trick Pictures and How a Motion Picture Can be Made to Pay. The book is one that will be found interesting and instructive by all who are interested in motion picture work and we would advise such of our readers to secure a copy.

# NOTES AND COMMENT

**A Department Devoted to the Interests of our Advertisers and Friends**
**In it will be found much that is new and of interest**

**Reported by William Wolff**

C. L. Hixon of Yuma took a vacation at the several beaches and W. Metcalf of Santa Paula spent his at Catalina Island.

Am myself on a vacation at Ocean Park and almost forgot to make a report this month.

Over Reno way I found all the photographers quite busy and happy.

W. Roberts has opened a studio at Nogales, Arizona. Mr. Roberts came from Mexico some months ago.

T. S. Hutchison of Ogden has sold his sporting goods and kodak business to C. Armstrong, formerly of Browning Brothers Company of that city. Mr. Hutchison is now with Proudfit's Sporting Goods House of the same place.

The Salt Lake Photo Supply Company have moved into a new and better location, one that will do much to make the house a winner.

The Utah Photo Materials Company have also been on the move. Their new location is next to the Salt Lake City post office.

A. H. Brooks is now located at Orcutt, having sold his Porterville studio to the Crittenden sisters.

San Diego dealers report fair business, particularly for this season of the year.

C. H. Weston of Tropico and A. Majonier of Los Angeles attended the National Convention at Cleveland.

H. S. Irby has sold his studio at Prescott, Arizona, and was visiting in Los Angeles recently.

### A New Size of Camera

The 8x10 size of plate or picture has the same proportion as the 4x5, a proportion that is being supplanted in favor by the post card size in the latter case, and in the former will no doubt find a strong competitor in the new 7x11 size of the Eastman View No. 2. This is perhaps the most pleasing proportion that could be given the view photographer as it is a little shorter form of the parallelogram than the popular post card size and a little longer one than the favorite 5x7; being, in fact, practically midway between the two. For group work the new size is obviously just the thing, while for view and landscape work the unnecessary sky space that is nearly always in evidence in the 8x10 print is transferred to the ends where more room is generally wanted. Best of all, the new form is much better suited to upright subjects such as tall buildings and the like. In addition, the picture looks larger and the particular proportion will almost invariably show either much more of the subject matter or larger images of the objects photographed than will the 8x10 size. The new camera has an added amount of swing to the back and the desirable feature of an exceptionally wide front board with a shifting movement that permits the lens to be centered on either half of the 7x11 plate. View photographers and others should investigate this new camera at the earliest possible moment, either by looking it up at their dealers or writing the Eastman Kodak Company, Rochester, New York, for descriptive circulars.

### An Appeal For Albania

William Willard Howard of New York, who has returned from his third trip to this hunger zone of Europe, predicts that the entire population of Albania will die of famine and pestilence unless helped. He says that in Albania corn is fifty dollars a bushel, flour eighty dollars a sack, and macaroni five dollars a pound. He says: "The Albanians are as much entitled to sympathy and help as others. They have not taken part in the war. They fed and sheltered the refugees from Servia, even with the last measure of corn that the famine-smitten villages possessed. They have not done any wrong; yet armies have swept over their country, taking what could be found to take, leaving to the starving women and children only the carcasses of dead horses in the streets. I want to go back to Albania with a shipload of food. I have arranged for a ship—a new American ship, just launched and fitted for sea. The ship is ready and waiting. The treasurer selected to receive contributions is the Rev. Frederick Lynch, D.D., editor of *The Christian Work* and secretary of the Carnegie Church Peace Union. Contributions in any amount, from the price of a loaf of bread upward, may be sent to the Balkan Relief Fund, 70 Fifth Avenue, New York City."

### A Finger-Print Camera

The very latest in cameras is one designed to photograph finger prints in a thoroughly efficient manner, even though the prints be located in a position that makes it difficult, if not impossible, to secure an image with a camera of the usual form. Four electric lights, situated within the camera, removes the handicap imposed by darkness, and as the front of the camera is placed against the surface on which the prints are located, no focussing trouble is involved. Pressing down the exposure lever automatically turns on the lights and opens the shutter, the lens being of such a focal length that a full size image is in sharp focus on the plate. A most interesting descriptive circular can be obtained from your dealer or direct from the makers, Folmer & Schwing Division, Eastman Kodak Company, Rochester, New York.

### Opening New Branches

R. Lewis Morris, vice-president of Herman & Herman, Incorporated, the great New York chemical house, will sail on Saturday, October fourteenth, from New York on the steamer St. Louis to open English offices for the corporation. Messrs. Herman & Herman are also opening offices in Petrogad, Moscow, Genoa and Barcelona, and still others will shortly be opened in the Far East. In November an officer of the company will sail from New York for Brazil and Argentina, to establish headquarters in those countries.

### Prizes For Photographs

Photographers, both professional and amateur, can find a good market for a certain class of pictures by addressing the Portland Cement Association and requesting details of a photographic competition which it is now conducting. A number of cash prizes for best pictures received will be offered, in addition to which all prints received that are suitable for advertising or booklet illustrating will be purchased at a fair price. Write the Portland Cement Association, 111 West Washington Street, Chicago, Illinois, for particulars.

### Money For Good Photographs

The Portland Cement Association is conducting a photographic competition for the purpose of securing pictures showing the many ways in which concrete has been used. Cash prizes will be offered for some of the best pictures received and all others which may be entered in this contest and which prove suitable for use for advertising and booklet illustrating, will be purchased at a fair price. Any good picture of concrete work is therefore likely to be worth money to you. Please pass this information along. If you or your friends are interested, write for full particulars to the Portland Cement Association, 111 West Washington Street, Chicago, Illinois.

### Mr. Riley Enters New Field

Phil M. Riley, for many years Associate Editor of *Photo-Era*, and well known to the reading public for his informative articles on photography, architecture, mechanics and the motor car in many leading periodicals, has joined the editorial staff of *The India Rubber World* as a special writer. Mr. Riley has been studying the rubber industry for sometime past, has appreciated its great opportunities and hopes to make it his life work. He has our best wishes for a signal success in his new field.

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Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24th, 1912, for October 1st, 1916, of CAMERA CRAFT, published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Fayette J. Clute, who, having been duly sworn according to law, deposes and says that he is the editor of the CAMERA CRAFT and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editor, Fayette J. Clute, San Francisco, California; Managing Editor, Fayette J. Clute, San Francisco, California; Business Manager, Fayette J. Clute, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriette E. Clute, Trustee, Hanford, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) FAYETTE J. CLUTE, Editor.

Sworn to and subscribed before me this twentieth day of September, 1916.

SID J. PALMER, Notary Public,

in and for the City and County of San Francisco, State of California. My commission expires December thirty-first, 1916.

# CAMERA WANTS

**Advertisements of the above nature shown below will be inserted under this heading at the rate of fifty cents each insertion, for twenty-five words or less; each additional word, two cents extra, cash with order. Those of positions wanted inserted free. No business advertisements accepted.**

**10x12 GUNDLACH** Rectigraph lens, newly fitted with Iris diaphragm; list, $60.00; will sell for $25.00. N. C. H., care "Camera Craft," San Francisco, Cal.

**FOR SALE** Zeiss Protar VIIA No. 13, f:6.3 in Volute shutter, including barrel mount with iris diaphragm. All in first class condition. Price $65.00, cost $129.50. A. L. Sears, Mount Vernon, Wash.

**MOTION PICTURE** Camera, Prestwich No. 5 motion picture camera, with Zeiss Tessar f:3.5 lens, professional tripod with tilting and panoramic top, extra fade out and iris attachments, carrying cases for camera and magazines. Complete outfit in fine condition and suitable for most exacting professional work. Outfit cost new $360.00, sell for $170.00 cash. Write or wire to Cameraman, Room 316, 1900 Euclid Ave., Cleveland, Ohio.

**FOR SALE** Studio in mining town 8000 population, monthly payroll $150,000.00; nearest town 7 miles, population 12,000, good payroll; 8x10 Century camera, Voigtlander lens. Three years' lease, third door from post office, one competitor. Splendid opportunity for right party. Good reason for selling. Fisher Studio, Miami, Ariz.

**FOR SALE** Photo studio in town of 30,000 population; also enlarging and amateur work amounting to $100.00 per month. Viewing 8x10 with Goerz Dagor 6½x8½. Rent only $10.00 per month; electric light, heat and running water, also living room. Good reason for selling. $100.00 cash. Majestic Studio, Majestic Bldg., La Crosse, Wis.

**POSITION WANTED** Photographic supply buyer for large department store wishes similar position in West or Southwest, Mexican border state preferred. Will consider small proposition. Address Buyer, 418 East 40th St., Chicago, Ill.

**POSITION WANTED** In studio by an all-round photographer of several years' experience. Can furnish references to satisfy the most exacting. Address C. L. Dunlop, 1001 S. 1st St., Louisville, Ky.

**FOR SALE** Ernemann Folding Pocket Camera, 3¼x4¼ Carl Zeiss Tessar f:6.3 lens, focal plane and front shutters, 6 plate holders and film pack adapter. Cost $100.00, will sell cheap. J. Herlihy, 451 4th Ave., Phone Pacific 5548, San Francisco, Cal.

**POSITION WANTED** By Japanese retoucher, will work by piece. N. F., 1422 Geary St., San Francisco, Cal.

**POSITION WANTED** In photographic work, 10 years' experience both in professional and amateur photography. Address Ruby E. Decker, 560 Ellicott St., Buffalo, N. Y.

**WANTED** Experienced first class salesman for amateur retail department, permanent. Give experience, references, salary expected and send photograph with first letter. W. L. G., 22 Central Ave., Atlanta, Ga.

**QUICK SALE** 8x10 view camera fitted with new f:6.3 Velostigmat, with finishing outfit complete. Dandy outfit. Bargain for cash. Need money. W. H. Partin, Sapulpa, Okla.

**$450.00** Will buy fully equipped leading studio, Central California; territory 5000, rent $12.00; good opportunity. Holiday trade should clear investment. Easy terms, less for cash. Address A, care "Camera Craft", San Francisco, Cal.

**WANT SALESMEN** For our advance slides of motion picture stars. No investment required. Percentage basis. All time or side line. Frank B. Howe, 6822 Sunset Blvd., Los Angeles, Cal.

**POSITION WANTED** By cultivated artist, student of the Munich High School of Fine Arts, Germany. 25 years' practice in professional photography and all its different branches, expert in home portraits and studies of children; would like to make contract as operator with first class studio only. No "cut and dried" work done. Also fine landscape artist. Can give best of references, also samples and self portrait. Send your offer to F. H., 311 F St., Eureka, Cal.

**SELL OR RENT** Good paying studio in Central California on account of retiring from business. C. J., care "Camera Craft", San Francisco, Cal.

**FOR SALE** On account of death of owner, series III Goerz Dagor 5x7 7-inch focus, $35.00; Celor No. 6 Goerz type B series Ib, $70.00; Voigtlander series I studio f:3.2, 9½-inch focus, $40.00; Rapid Rectilinear, 12x16, $15.00; Carlton camera, 8x10, tripod and 6 holders, unused, $25.00; Thornton Packard speed shutter 8x10, fits above camera, $18.00; Premo plate camera, tripod and holders, $8.00; pair 10-inch condensing lenses in perfect shape, hand carved posing chair and 5x8 view camera, tripod and holders. A fine stock of high grade folder stock, assorted photographic colors, also embossed bristol board, tissue. Very heavy 14 karat solid gold watch, engraved on one side with camera and palette, Swiss, 17 jewels, Agassiz movement, solid gold cable chain, also locket solid gold, engraved to match watch. Arnold vibrator in fine condition. Address Fred V. Shaw, Trustee, 124 Sunnyside Ave., Oakland, Cal.

**PLATINUM PAPER** Have 6 dozen smooth and 2 dozen rough 6½x8½ Angelo Sepia Platinum, and 14 dozen smooth 4x6, The guarantee has expired but the paper is O. K. Will take $12.50 for the lot and prepay transportation charges. F. C. Lee, 64 Van Ness Ave., Fresno, Cal.

**MOTION PICTURE** Outfit consisting of Ernemann camera, model A, 6 magazines, prismatic focussing attachment, printing attachment, 2 carrying cases and tripod. Only used a few times. Cost $300.00, sell for $200.00. A. I. Root, 3006 Pacific St., Omaha, Neb.

**OPERATOR** First class for new model branch studio. Must be good fast worker and willing to assist either with retouching or printing. State experience, age and salary wanted. To right man is a permanent and desirable position. Address O. L. P. Angvire, Spokane, Wash.

**RECEPTIONIST** For busy high class studio. Must have tact and selling ability. State experience, age and salary wanted. To right party this is a permanent and desirable position. Address O. L. P. Angvire, Spokane, Wash.

**FOR SALE** In city of 10,000 Eastern Oregon, leading studio, good business, can be increased to double in year. Finely equipped throughout. Center of big mining, cattle, sheep, lumber industries and wheat raising. Other business to demand my entire attention shortly. Without the above reason for selling $2000.00 would not buy. A quick turn will take it for half. Fullest investigation given. Address 2110 Main St., Baker, Or.

# CAMERA WANTS—Continued.

**OPERATOR** Of long experience and with national reputation is open for engagement. Address K. P., care "Camera Craft", San Francisco, Cal.

**FOR SALE** The leading studio in the best city in the Pacific Northwest, population 275,000; everything new, modern, and up-to-date, new building, best location in city; best trade at high prices. Address A. B., care "Camera Craft", San Francisco, Cal.

**WANTED TENAX** 4x6 equipped with f:4.5 lens. State condition and price. Address Tenax, care "Camera Craft", San Francisco, Cal.

**WANTED** 6 or 6½ inch anastigmat lens to be used on a 4x5 Century camera, and a portrait lens to be used on an 8x10 camera. Must be in good condition and at right price. Address B. W. D., care "Camera Craft", San Francisco, Cal.

**POSITION WANTED** By a first class all-around commercial photographer. Is open for engagement and understands the business thoroughly; capable of taking full charge of plant; especially fine at flashlight operating. No objection to leaving San Francisco. Address Commercial Photographer, care "Camera Craft", San Francisco, Cal.

**ADAMS LONDON CAMERAS** One roll film Vesta 2¼x3¼, Carl Zeiss lens, pigskin case, cost $100.00, sell for $65.00. 1 Minex De Luxe 4x5, 2 magazines, Protar lens, carrying case, etc., cost $320.00, sell for $200.00; 1 Vaildo 4x5 with Minex focal plane shutter, roll holder, carrying case, etc., cost $100.00, sell for $55.00; all in perfect condition. A. I. Root, 3006 Pacific St., Omaha, Neb.

**WANTED** 8x10 studio eamera, stand and backgrounds. Can use Victor Cabinet or northern light. For sale Radion enlarging machine, takes 5x7 negatives. The Kodakery, 935 Market St., San Francisco, Cal.

**FOR SALE** Paying photo shop in Los Angeles, established one year, profitable future. Price $350.00 now, more later; might ccach amateur for consideration. 5436 Central Ave., Los Angeles, Cal.

**HAWKEYE CAMERA** 4x5 double extension bellows, Ross Homocentric anastigmat lens f:6.3, 6-inch focus, Junior Multi-Speed shutter, plate back, roll film back, 6 double plate holders. First class condition, cost $80.00, sell for $40.00. J. Homer Smith, 1728 Euclid St., Washington, D. C.

**BOUND VOLUMES** For sale at $1.00 per volume in sets as follows: Camera Craft, vols. 15, 16, 17; Photo Era, vols. 20, 21, 22, 23, 24, 25; The Camera, vols. 9, 10, 11, 12, 13, 14; Photographic Times, vols. 40, 41, 42; American Photography, vols. 1, 2, 3, 4; Bulletin of Photography, vols. 5, 6, 7, 8. All in perfect condition. Bindings alone worth $2.00 per volume. Will sell entire lot for $15.00. A. I. Root, 3006 Pacific St., Omaha, Neb.

**RETOUCHER** A good retoucher. State experience, age and salary wanted. Permanent position. Address O. P. L. Angvire, Spokane, Wash.

**FOR SALE** Well equipped studio in Northern Iowa town of 1500. Excellent territory. Large holiday trade. No competition. Address J. A., care "Camera Craft", San Francisco, Cal.

**FOR SALE** Only studio in town of 1400. Rich territory, good business. Must sell as I have rhcumatism and can hardly step. $200.00 for quick sale. Address Mrs. W. S. Greer, Rock Valley, Iowa.

**FOR SALE** Up-to-date studio on the main street fitted with everything needed to do any kind of work. $495.00; terms. Address Branch Studio, 218 W. Washington St., Phoenix, Ariz.

**FOR SALE** One of the leading studios in the best city of Southeastern South Dakota. Will sell cheap if taken before December first. Address C. D., care "Camera Craft", San Francisco, Cal.

**FOR RENT** For 18 months, owner wants to go South for a year and a half or longer. Studio located in West Central Minnesota town of 3000. One competitor. Ground floor, north light, city water, electric light, best location. Business averages from $2700 to $3000 a year. December business 1915 over $500.00. Practieally every month this year shows increase over 1915. $30.00 per month pays for use of about $1000 worth of equipment and rent of studio. Will require $150 to $200 cash as renter is expected to buy stock on hand. Do not write unless you can turn out good work and first class references. Address X. Y. Z., care "Camera Craft", San Francisco, Cal.

**POSITION WANTED** By all around photographer. Address G. K. Wangsness, Appleton, Minn.

**FOR SALE** Only studio in city of 4000. 20 miles from St. Paul. City water, gas, electric light and telephone. Rent $10.00 per month. Living room in connection. Fully equipped and doing good business. $1500.00 takes it, $400.00 down. Reason for selling, poor health. Address A. Meidell, Hudson, Wis.

**WANTED** A first class operator who can do some retouching or printing. Address O. P. Angvire, Spokane, Wash.

**FOR SALE** Studio at Dodge Center, Minnesota. Population 1000. Good farming community. Very reasonable price. Address Box 125, Dodge Center, Minn.

**SALE OR RENT** Ground floor studio in new growing town in Eastern Montana. Equipped to 8x10. County seat, population 1200. No competition. Easy terms to reliable party. Address Photographer, Plentywood, Mont.

**SALE OR RENT** Studio in Buffalo, Minnesota. Good location, no competition. Husband died reason for selling. Address Mrs. J. A. Lindberg, Buffalo, Minn.

**FOR SALE** Building, outfit and stock. Portraits to 8x10. Amateur finishing, picture framing and commercial work if you want it. Single slant north light. Water in building. Electric lights if you want them. $425.00 cash. Address Gray Studio, Aitkin, Minn.

**FOR SALE** The Hover Studio, Flandreau, So. Dak. Population 1500. Also Indian School enrollment 450. City water, electric light. Fully equipped. $350.00 in cash takes complete stock ready to operate. Rent $100.00 per year. Address E. O. Hoover, Flandreau, So. Dak.

**WANTED TO TRADE** 40 acres unimproved land five miles east of Backus, Minnesota, and 7½ miles north of Pine River, for studio in Montana or Central Minnesota. Address Box 78, Backus, Minn.

**WANTED** Studio in town of 1500 or more. Would buy building and lot if suitable. Can pay cash. Address Fred Hulstrand, care Northern Photo Supply Co., Fargo, N. D.

**RETOUCHER** And printer wanted by one of the leading studios in Southern Oregon. Either man or woman able to work in backgrounds, color portraits, etc. Address giving full particulars, A. C. H., care "Camera Craft", San Francisco, Cal.

**FOR RENT** Furnished studio doing good business, January 1st, with privilege of buying. Address Box 673, Lyons, Kans.

**HESS-IVES** 3¼x4¼ outfit, new and complete. For sale or will exchange for suitable outfit for traveler. Tenax or similar 3¼x4¼ or post card size film-plate camera preferred. R. G. Manifold, Riverside, Cal.

**FOR SALE** Two tube Cooper Hewitt light and rectifier. Richard H. Smith, Missoula, Mont.

**SALE OR EXCHANGE** Studio outfit for typewriter, folding camera, gun or any thing useful. J. R. Bakula, R. F. D. No. 1, Dubuque, Iowa.

# CAMERA WANTS—Continued.

**PHOTO STUDIO** For sale In San Francisco, good light, equipment, low rent, doing good business, owner to leave city. Address A. K., care "Camera Craft," San Francisco, Cal.

**POSITION WANTED** By commercial photographer, 10 years' experience, best of references, at liberty October 1st. Address J. M., care "Camera Craft", San Francisco, Cal.

**WANTED** A receptionist who can also do first class retouching and be able to put In backgrounds on prints. E. R., care "Camera Craft", San Francisco, Cal.

**FOR SALE** 5x7 Empire State View camera, tripod, Conley 3-focus R. R. lens, 6 plate holders, carrying case. Money back if not satisfied; $18.00. Wilfred Henwood, 420 South 5th St., Victor, Colo.

**FOR SALE** Studio with up-to-date equipment located in one of California's most substantial and growing cities, Vallejo, 15,000 population. Only one other studio. Well established business with good prices. The future is assured in the government policy of battleship construction at Mare Island Navy Yard, where thousands of mechanics are employed. Also the Pacific Naval Fleet affords a field of business from the officers and enlisted men. $700 cash; a bargain. Failing eyesight compels sale at a sacrifice. For full particulars address E. K. Halverson, 413 Georgia St., Vallejo, Cal.

**FOR SALE** Good studio. Business brought $2500.00 last year. Good place for German or Norwegian. Price $1500.00, which includes dwelling and lot. Very easy terms to right party. Address J. DeWilde, Cashier First State Bank, Prairie Farm, Wis.

**FOR SALE** New $140.00 Eastman home portrait outfit complete; camera, f.6 portrait lens, shutter, stand, head cloth, reflector, background and carrier, 9 double plate holders. All contained in two small cases. Sell for $80.00 or will trade for 3¼x4¼ R. B. Graflex fitted with IC Tessar 4.5 lens. E. S. Hamilton, 1576 Milwaukee Ave., care N. W. Pharmacy, Chicago, Ill.

**QUICK FINISH** Post Card studio for sale, best location in San Francisco. Owner has two studios but can handle only one. You can have your choice. Address M. M., care "Camera Craft", San Francisco, Cal.

**WANTED** An expert receptionist for high class studio. Address O. P. Angvire, Spokane, Wash.

**WANTED** A 5x7 camera of standard make equipped with anastigmat telephoto lens. Must be first class and low in price. P. O. Box 678, Grants Pass, Or.

**WILL TRADE** American Motion Picture camera equipped with f:3.9 Bausch & Lomb lens, cost $250.00 and in new condition for good Graflex with fast lens. J. Arthur Reid, Millersburg, Pa.

**FOR SALE** Brand new No. 1 2¼x3¼ Autographic Kodak Special, Zeiss Tessar f:6.3 lens, lists $45.00, will take $35.00 (no trade). Ernst Grams, Michigan City, Ind.

**FOR SALE** Kinograph moving picture camera, new, never used, with f:3.5 Zeiss Tessar lens. Three extra film boxes, Kinograph tripod and 700 feet Eastman negative film. Cost $150.00, take $100.00. 5x7 Telephoto camera, Gundlach lens and shutter, three holders, set of five convertible ampliscopes, tripod and sole leather case, $20.00. 6½x8½ series V Bausch & Lomb Zeiss Protar with Low shutter, good as new, $25.00. Also 4-inch Silent Studio shutter, new, $2.50. W. S. Valentine, Redding, Cal.

**SALE OR EXCHANGE** 6½ x 8½ Zeiss Protar, Auto shutter $50.00, exchange for 5x7 Dagor or Protar to use on hand camera. L. M. Hall, Medford, Or.

**FOR SALE** 4x5 camera 6½ inch Goerz Dagor f:6.8 lens, Optimo shutter, case, holders, adapter and developing outfit, cost $80.00, take $37.50 or lens and shutter $27.50. Hinds, 1915 Park Ave., Denver, Colo.

**BUY OR RENT** Good paying studio or would accept position as operator and printer or manager. Address C, Box 434, Washburn, Wis.

**FOR SALE** Do you want a good permanent home and studio combined in a fine county seat town of about 1200 and growing fast? I want to change climate and will sell at a great sacrifice a fine studio on corner of main business street, two lots, 50 foot front, 9 room residence in rear facing very pleasant residence street, with nice lawn, shade trees and boulevard—in short, an ideal home and business. Will also include two branch studios and photo car in good towns; the whole business in large, very rich and thickly settled territory. Would sell separately. Don't answer unless you have some cash. Address 1429 N. 4th St., Mankato, Minn.

**FOR SALE** 8x10 Goerz Dagor with Sector shutter, barrel and 3 Goerz ray filters, $90.00; 6½x8½ Premo view camera with 7 holders, tripod and case, $17.50; 5x8 Velostigmat f:4.5 in barrel, $40.00; 3¼x5½ Kodak, anastigmat f:6.3, Multi-Speed shutter, $25.00. R. Dissing, 718½ J St., Sacramento, Cal.

**WANTED** Good all around studio help. Single gentleman preferred. Address Lindrooth Studio, Redfield, So. Dak.

**FOR SALE** 5x7 view fitted with Gundlach Manhattan f:6.8 anastigmat lens in Optimo shutter, 9 double plate holders, case, tripod, lot of other things like new, cost $78.60 at wholesale, take $60.00. Also 3A Graflex fitted with 5x7 Zeiss Tessar IC f:4.5 lens, cost $135.00 two years ago, take $85.00. Both outfits guaranteed. Will take high grade 3¼x5½ Kodak or similar in exchange on either one. H. G. Raveling, Warren, Minn.

**FOR SALE** Investigate this proposition if in search of bargain. Studio in Central California town of 3,500. Complete outfit, good prices, Kodak agency in connection. Interests elsewhere demand attention. Address B. O. X., care "Camera Craft", San Francisco, Cal.

**FOR SALE** R. R. 8-inch focus lens fitted with B. & L. shutter, cost $45.00, sell for $10.00. Address A. C. Millington, La Crosse, Wis.

**POSITION WANTED** By first class lady retoucher and finisher in good studio for the fall and winter months. Wages moderate. Prefer Iowa or Middle West. Address "A. C.", care "Camera Craft", San Francisco, Cal.

**POSITION WANTED** In city or town near by to assist in studio and learn the trade. Address J. W. Anderson, 512 17th Ave. So., Minneapolis, Minn.

**POSITION WANTED** By experienced lady retoucher and assistant. Address "C. 1", care "Camera Craft", San Francisco, Cal.

**FOR SALE** Beautiful little imported Rietzschell camera with Carl Zeiss Tessar f:4.5 lens in Compound shutter, 2¼x3¼ film pack adapter, 21 metal plate holders and carrying case. Practically new, cost $92.00, price $60.00; also a Soho Reflex 3¼x4¼ revolving back, focal plane shutter with Cooke 5-inch f:4.5 lens, 3 double plate holders, film pack adapter, focussing spectacles, carrying case, etc., $55.00. J. C. Todd, University of Colorado, Boulder, Colo.

**FOR SALE** 4x5 model 46 Century camera, R. R. lens, 5 plate holders, pack adapter, leather case, excellent condition; amateur Ansco printer, brand new, $20.00, C.O.D. examination. P. J. Aucoin, Box 83, Thibodaux, La.

G. E. BIDDELL CAMERA DOCTOR 693 MISSION STREET, Cor. THIRD SAN FRANCISCO - CALIFORNIA

# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

## CHECK UP RESULTS WITH AN AUTOGRAPHIC KODAK

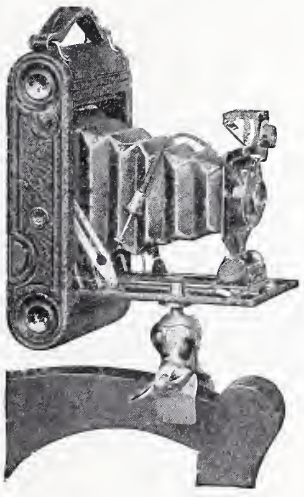
Valuable as the autographic feature is to anyone, it is indispensable to the careful amateur because of its obvious advantage in checking up photographic results. By the time the entire roll of film is exposed and the strip developed, the conditions under which the various pictures were made are often wholly forgotten or recalled in only a vague sort of way. The exact reason for this negative's success or that negative's failure can only be definitely determined by reference to accurate data as to the conditions under which the picture was made. And it is just this information that the autographic record can supply.

Autographic photography is efficient photography—through its means, the chance for failure is placed at a minimum.

Suppose you are photographing a subject in bright light with the shutter working at 1/100 second and stop No. 32 and are using, as you should, an Autographic Kodak. After the exposure is made you write the date and title on the film immediately and then add the above working information abbreviated to B, 1—100, 32. A week passes before you have your first glance at the negative. You find it printable but badly under-exposed and immediately wonder how much time you gave it and what stop you used. But you noted that data on the film at the time and it's right below the negative ready for reference. The negative with its attendant record accordingly becomes an object lesson—you won't make *that* mistake again.

All the folding Kodaks and Brownies are now autographic and most of the old style Kodaks (not Brownies) can be brought up to date by the substitution of an autographic back for the old back. It's a matter of seconds only to make the exchange. Simply slip the old back off, clap the new one on and your Kodak becomes autographic at once. Autographic Backs are priced from $2.50 to $4.50 according to size.

*A first aid to the time exposure.*



## The Universal Clamp

A tripod substitute which, when attached to a chair, fence, automobile—in fact any rigid support, renders *full* tripod service. So light and small that it slips into any pocket conveniently.

Universal Clamp, - $ .75

# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

## YOU PRESS THE BUTTON AND YOU DO THE REST

There's pleasure in photography all the way—from the "click" of the shutter to the mounting of the print. Picture making, under the exclusive management of Kodak, is eighty-five per cent fun and fifteen per cent pleasure, for the Kodak plan has embraced all the necessary steps in the making of a picture and reduced them to their simplest, most convenient forms.

A good example of this is the Kodak Amateur Printer by means of which prints can be made *right.*

Kodak Amateur Printer.

The Kodak Amateur Printer consists of a box with a removable top in which is located the printing glass. Inside the box are two electric lights—one, a small, red bulb which supplies the necessary illumination for the adjustment of negative and paper, the other, a powerful Mazda lamp which provides the printing light. At the side of the box is a window covered with orange fabric which serves as a dark-room lamp with the red bulb turned on or, with the Mazda lamp, a safe light for Velox developing.

A particular feature of the Kodak Amateur Printer is an automatic masking device. Thin metal strips, accurately scaled, which may be adjusted as desired, mask the paper with perfect accuracy so that prints with white margins may be obtained from any film negatives from the vest pocket up to and including the 4 x 5 and post-card size. A hinged frame holds the negative and paper tightly together.

The exposure is entirely automatic. When the hinged cover holding the negative and paper is closed, the Mazda lamp is automatically turned on, when the catch is released the Mazda lamp is extinguished and the red bulb burns. This arrangement not only prevents wasted current but insures maximum speed in printing. A milled head makes it possible to so change the position of the printing light that it can be brought directly under the center of any amateur sized negative. This feature emphasizes even illumination.

It is obvious that with the Kodak Amateur Printer duplicate prints may be made with absolute uniformity.

Mazda lamps, preferably of frosted glass to insure even illumination, of 60, 40, or 25 Watts may be used in the Kodak Amateur Printer.

**The Price.**

Kodak Amateur Printer complete with red bulb and 5½ feet of electric light cord with socket (but without Mazda lamp) . . . . . $6.00

## E. K. Tested Chemicals

*Look for the seal—*
*it makes you certain:*

EASTMAN KODAK CO. TESTED EK CHEMICALS ROCHESTER, N.Y.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

*At your dealer's.*

# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

## KODAK METAL TRIPODS.

The No. 6 Kodak Metal Tripod is not simply compact, it's *compact.* If type talks these italics should tell the story because the No. 6 is compactness emphasized. It's a pocket tripod—a folding head allows the legs to be folded flat—thus closed the tripod compresses to pocket size. And the No. 6 Kodak Metal Tripod has other features to recommend it. It is light in weight, easily set up and taken down and from the nature of its metal construction is unusually rigid.

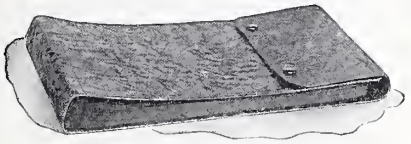
There are several Kodak Metal Tripods and while to the No. 6 belongs the title of "pocket tripod" exclusively, light weight, rigid construction and ease of manipulation are family traits. And No. 1 and 2 have the distinctive feature of a revolving head which allows the camera to be swung from side to side without moving the tripod.

All the Kodak Metal Tripods have telescoping legs of brass tubing—lower ones nickeled and the upper, black enameled.

The price of the No. 6 is $6.00—other Kodak Metal Tripods range in price from $2.25 to $4.00

## LET A KODAK ALBUM TELL THE STORY.

Thanksgiving means either a home-coming or a home-going. Either "the folks" are coming to your house or you are going home to "the folks". Nothing tells the story of what has happened since the last reunion as well as pictures and there is only one satisfactory method of showing them—in an album.



Hercules Album.

The newest Kodak album is the Hercules bound so handsomely that only superlatives adequately describe the rich effect secured. The flexible covers are of genuine leather in a new shade of blended gray and black. A flap with clasps (see illustration) keeps the pages from spreading even when the album is filled. It is furnished with 50 black leaves and also has a large pocket at the back for loose prints.

Ask your Kodak dealer to let you see the Hercules—and then take it with you.

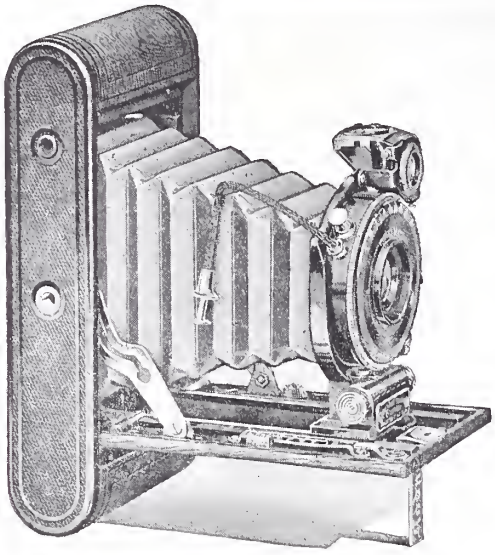
The price ranges from $2.65 to $5.00 according to size.

## KODAK DOMINATES

Not alone because it is first in photographic invention and progress, but because it so encourages and rewards the taking of infinite pains that honest workmanship has become a habit in the Kodak factories.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y., *The Kodak City.*



# No. 1 Autographic KODAK, *Special*

A Kodak in its simplicity and compactness—easy to operate and fits the pocket.

A *Special* in its lens and shutter equipment—high speed anastigmat lens and Optimo shutter with adjustable speeds ranging from 1/300 of a second to one second.

And then too, there is a nicety of finish, a perfection of workmanship, an attention to detail that do their full part in making this model a *Special* in every sense of the word.

PRICE.

| | |
|---|---|
| No. 1 Autographic Kodak, *Special*, Bausch & Lomb Kodak Anastigmat lens, *f*.6.3, Optimo shutter (Formerly listed as the Zeiss Kodak Anastigmat) | $45.00 |
| Ditto, with Kodak Anastigmat lens, *f*.6.3, 4⅜-inch focus, . . . | 40.00 |
| Ditto, with Cooke Kodak Anastigmat lens, *f*.6.3, 4⅛-inch focus, . | 36.00 |

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

*At your dealer's.*

*Make the most of the Thanksgiving home-coming with a Kodak and*

# KODAK PORTRAIT ATTACHMENT

Impromptu head and shoulder portraits of friends and relatives are all in a Thanksgiving day's work for this efficient little attachment.

*The price is fifty cents.*

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

*At your dealer's.*

# Belt Case *for* Vest Pocket Kodak

When pockets are at a premium and there doesn't seem room for even such a compact little instrument as the V. P. K., this belt case qualifies as "just the thing."

Made of tough russet sole leather, tan color, with a broad loop through which the belt is slipped.

THE PRICE.

Belt Case for carrying Vest Pocket Kodak, . . $1.50

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

*At your dealer's.*

Olympic Calendar for Horizontal Prints.

With 1917 just around the corner and Christmas plans already under way

# The Olympic Calendar

fits into the general scheme very nicely.

Completed by a print from your collection, the Olympic lives up to every requirement that a Christmas remembrance or a New Year's greeting should observe.

Made in two attractive tones of grey and brown for either vertical or horizontal prints.

EASTMAN KODAK COMPANY,
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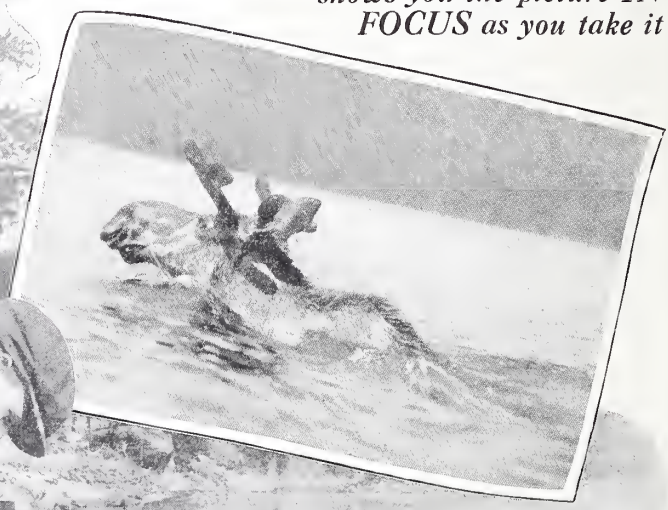
*At your dealer's.*

# GRAFLEX Camera

*—shows you the picture IN FOCUS as you take it*



FINER pictures than the usual camera takes—pictures that other cameras NEVER get—there's the story of Graflex briefly. For details, see the Graflex Book that's yours for a postal.

The book goes into full details—tells you all the How and Why—explains how the Graflex does away with the finder—how it makes *sure* of focus and exposure.

*Write for the Graflex Book.*

Graflex is the camera that makes the most of the light and the subject. What other camera, for example, can catch the kiddies at play indoors or moving objects in the dull, gray light of rainy day—and get them SHARP in detail as a mid-day snapshot? This book tells why the Graflex does. Write for it now.

*How the Graflex works—*
*See Page 4, Graflex Book*

FOLMER & SCHWING DIVISION
Eastman Kodak Company Rochester, N. Y.

# *A Remarkable Camera Achievement*

The smaller the camera the more convenient and easier to carry. Heretofore extreme compactness in cameras has meant the sacrifice of some features, restricting the general photographic scope of the instrument.

But here is a camera, surprisingly compact and light, yet so cleverly constructed as to offer every essential feature for making the best of pictures under all conditions of amateur photography, be they easy or difficult—a camera that provides for the user the very limit of photographic efficiency.

It takes films or plates with equal facility, it has a ground glass for accurate focusing and composition, or it may be used with focusing scale. It has two tripod sockets, reversible brilliant finder with revolving mask, and special focusing lever, making it a very simple matter to set the lens in correct focus for objects at any distance.

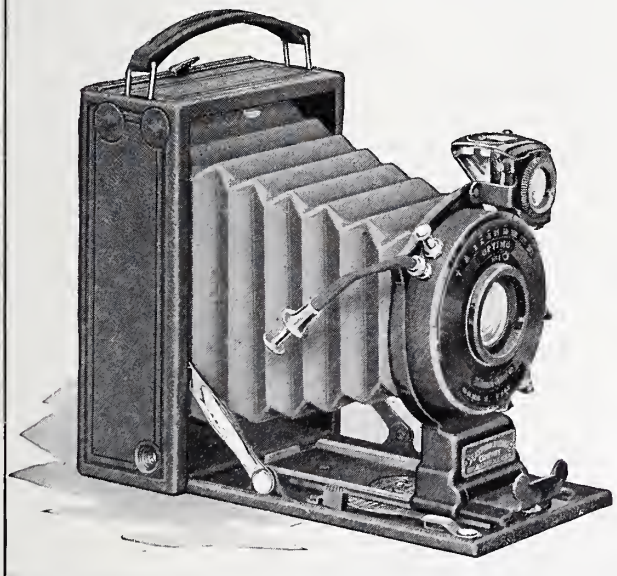
It is equipped with Optimo Shutter (highest speed 1/300 second) and a choice of the speediest anastigmat lenses including the Kodak Anastigmat *f*.6.3 and the B. & L. Ic Tessar lens, *f*.4.5.

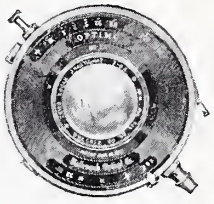
The anastigmat lenses supplied are of the right focus to insure a suitable size image, for the size of plate used, in its proper perspective. In other words, the shutter is large enough and the bellows long enough to accommodate a lens of the correct focal length, no sacrifice of these essentials being made by the use of short focus lenses, for such lenses must inevitably produce distortion if used sufficiently close to the subject to secure an image of the correct size.

For those who do not wish excessive speed, the camera is also supplied at especially attractive prices with Kodak Ball Bearing shutter and either Rapid Rectilinear or Kodak Anastigmat lens, *f*.7.7. Prices range from $15.00 to $54.00.

*All these advantages are combined in the thin, smooth, handsomely finished*

# PREMO No. 12



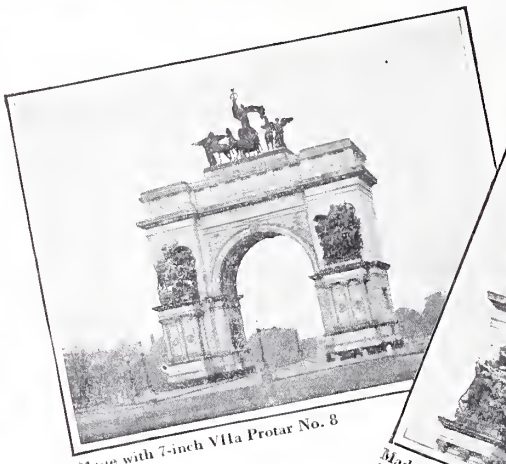


*Ask the dealer or write us for the new Premo catalogue. It's free.*

ROCHESTER
OPTICAL DIVISION

*EASTMAN KODAK COMPANY*

ROCHESTER, N. Y.



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## What He, The User, Thinks Of
# REXO CAMERAS

It is the man who uses an article day after day, who is the best judge of its efficiency. Therefore we refer you to any amateur who owns a Rexo Camera for his first hand testimony, regarding the superiority of Rexo Cameras.

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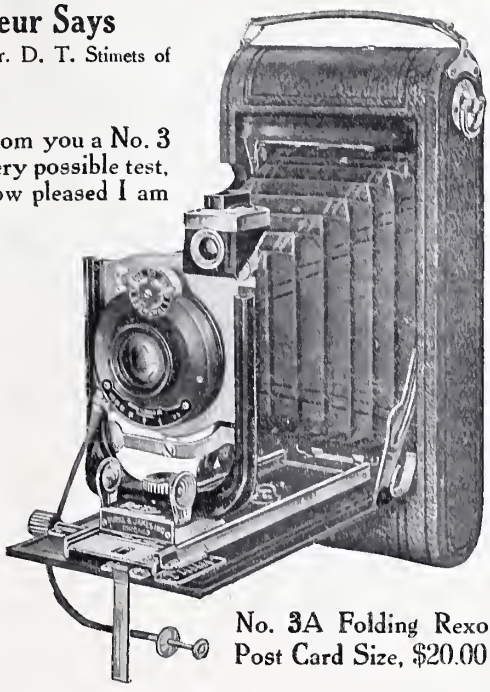
Extract from a letter written by Mr. D. T. Stimets of Minneapolis, Minn., to one of our dealers.

"Dear Sir:

Some time ago I purchased from you a No. 3 Rexo Camera. I have given it every possible test, and I cannot say enough to tell how pleased I am with the results. The lens gives perfect definition, the shutter works faultlessly, and I find it in every way worthy of its name, The Master Camera of America.

I have been making pictures for fourteen years and have used nine of the standard makes of cameras, and find there is no camera of the same class that will give as good results as my No. 3 Rexo. Many are the compliments I have received on the good pictures I get. My advice to every amateur who expects good results at the start, is to buy a Rexo Camera and they will find their money well invested."



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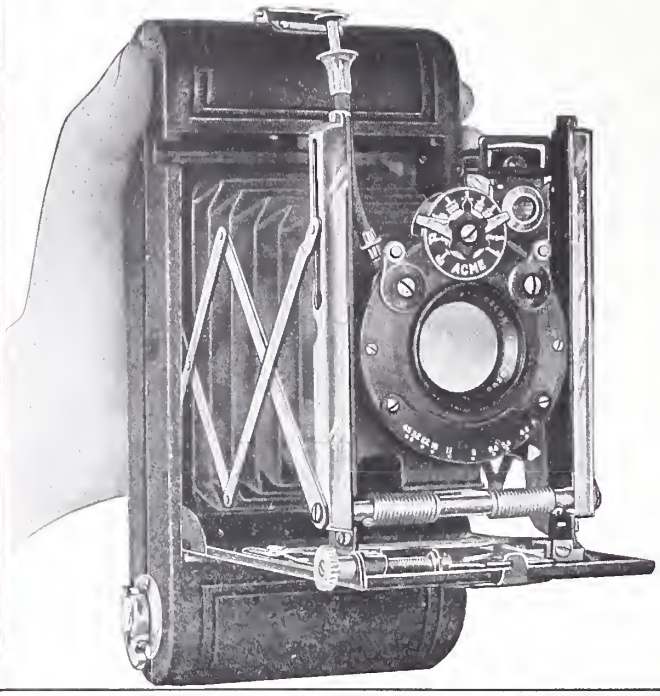


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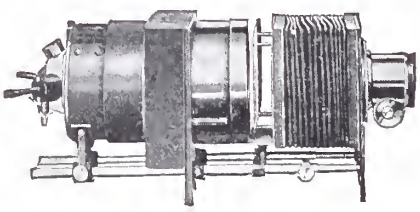

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Send sketch and description for Useful Booklet and Free Advice as to patentability.

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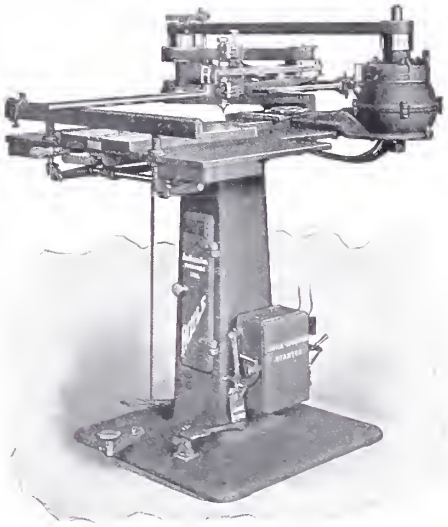

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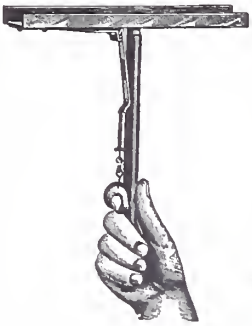

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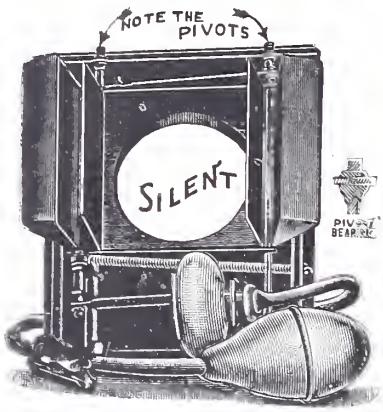


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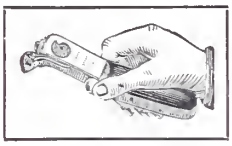

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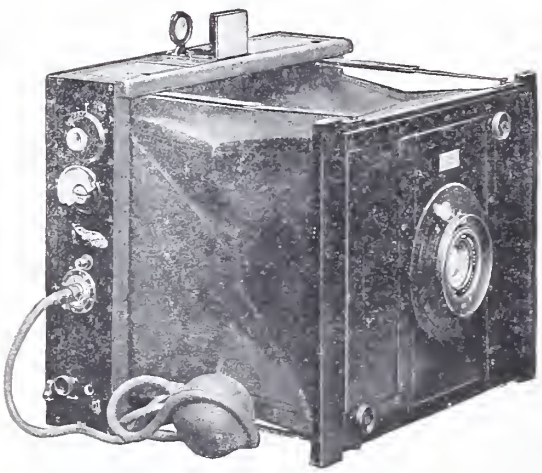

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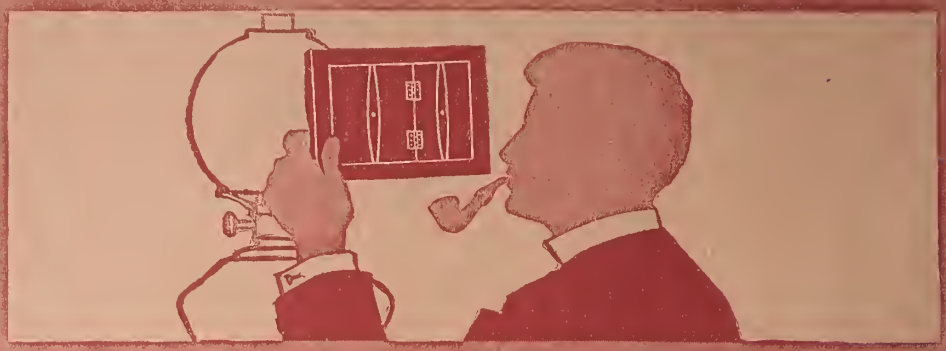
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.



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